EUROIMMUN
a PerkinElmer company

Medizinische
Labordiagnostika
AG

Autoimmune diagnostics

Infection diagnostics

Allergy diagnostics

Antigen detection

Molecular genetic diagnostics

Automation

Product Catalogue 2019

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About us

EUROIMMUN AG

The company · Socially responsible enterprise · Global business

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The company

EUROIMMUN is one of the leading manufacturers of medical laboratory diagnostics worldwide and stands for innovation. Over 2500 employees in 15 countries develop, produce and sell test systems for the diagnosis of diseases, and software and automation solutions for the performance and evaluation of these assays. Laboratories in over 150 countries use EUROIMMUN products for the diagnosis of autoimmune and infectious diseases and allergies, and to perform genetic analyses. The company was founded 1987 from the University of Luebeck (Schleswig-Holstein, Germany). As of December 2017, the US American company PerkinElmer, Inc. holds the majority of the EUROIMMUN shares. PerkinElmer is an international leader in the area of medical and biotechnology. The enterprise has its headquarters in Waltham, Massachusetts and has 11400 employees worldwide. With innovative detection and imaging techniques and IT systems, it provides comprehensive expertise in diagnostics, medical research and environmental and food analytics. PerkinElmer, Inc. is a component of the S&P 500 Index.

Among the initial pioneer achievements of EUROIMMUN was the development of the BIOCHIP (1983). Today, the company has at its disposal virtually fully automated BIOCHIP fragmentation and production devices, which were designed and produced in-house and are now in use worldwide.

Great expertise and ongoing training are essential for the use and distribution of the products. Every year, the EUROIMMUN Academy receives almost 1000 customers from over 50 countries, providing training for customers, field staff, and employees from all EUROIMMUN subsidiaries. Moreover, there are training laboratories in several countries. The accredited Institute for Quality Assurance, an institution of the company, organises quality assessment schemes and thus helps to maintain the high quality standard of external laboratories.

The Institute for Experimental Immunology, another EUROIMMUN institution, is dedicated to basic research. The institute also cooperates with universities, clinics and renowned research institutions from all over the world. These cooperations have resulted in a large number of diploma and doctoral theses. EUROIMMUN is ISO certified (EN ISO 9001:2008, EN ISO 13485:2012, ISO 13485/CMDCAS).

A large share of the company's success can be attributed to the associated reference laboratory, which offers a fast and differentiated diagnosis to the EUROIMMUN customers and clarifies several hundreds of patient samples with difficult constellations every day.

EUROIMMUN meets its needs for qualified personnel not only through its presence at recruitment and trade fairs and advertisements, but also through its own training program. Alongside the vocational school, the apprentices and trainees are offered a comprehensive practical and theoretical program and intensive mentoring in the work routine. At present, the company employs 94 trainees and more than 2800 persons worldwide. Women represent nearly 60% of staff and thus the majority. 1169 employees have an academic background, 191 of them hold a doctoral degree.

EUROIMMUN in figures

1987	founded in Luebeck, Germany	**7**	offices in Germany
284 M	euros of annual Group turnover in 2017	**14**	subsidiaries in other countries
2800	employees worldwide	**412**	own/in-licensed IP rights
1169	university graduates	**3rd**	in the ranking of the most innovative small and medium-sized enterprises in Germany (*WirtschaftsWoche*, April 2014)
191	employees with doctoral degree		
94	apprentices		

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Socially responsible enterprise

The atmosphere in the company is productive and characterised by openness and mutual respect. EUROIMMUN offers unlimited employment contracts.

All employees can benefit from the company's pension scheme, receive bonuses for excellent performance, and have the possibility to participate in regular trainings. The company's restaurant offers an excellent choice of food. Day care and an after-school club is provided for the employees' children.

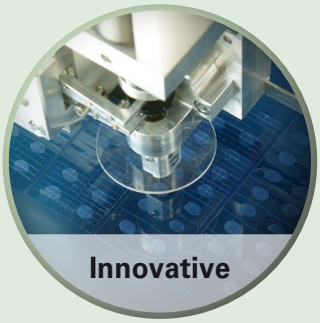
Future-oriented, secure jobs

International

Distribution partners
in over 100 countries

Scientific

Research, international
cooperations



Innovative

From creative ideas
to innovative products

Successful

Continuous growth
(10 to 20 % per year)

Attractive working conditions

Cooperative

Pleasant
working atmosphere

Family-friendly

Flexible working times,
all-day childcare

Social

Company pension scheme,
attractive social benefits

Delicious

First-class
company restaurant

Joint recreational activities

Athletic

Company sports: volleyball,
soccer, fitness ...

Active

Combining forces to
achieve things

Cultural

Concerts, exhibitions,
performances

Motivated

All together –
for the company

EUROIMMUN AG

The company · Socially responsible enterprise · Global business

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Global business

The main country to manufacture EUROIMMUN products is Germany. From there the products – reagents, automated analysis systems and evaluation software – are delivered to over 150 countries worldwide. Other production sites are Hangzhou/China, USA and Singapore. These subsidiaries produce EUROIMMUN products for their own markets.

All other subsidiaries are distribution companies, which also mostly have their own laboratories for training.

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Research and development

Scientific publications · Patents

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Scientific publications

Publications 2017/2018

1. Alfugham N, Gadoth A, Lennon VA, Komorowski L, Scharf M, Hinson S, McKeon A, Pittock SJ. **ITPR1 autoimmunity: Frequency, neurologic phenotype, and cancer association.** Neurol Neuroimmunol Neuroinflamm 5(1):e418.

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64. Strobino B, Steinhagen K, Meyer W, Scheper T, Saschenbrecker S, Schlumberger W, Stöcker W, Gaito A, Fallon BA. **A community study of Borrelia burgdorferi antibodies among individuals with prior Lyme disease in endemic areas**. Healthcare 6(2):69 (2018).

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Scientific presentations (abstracts/posters) 2017/2018

1. Chunder R, Linington C, Graus F, Sabater L, Stöcker W, Komorowski L, Probst C. **Recombinant cell-based indirect imunofluorescence assay for the detection of IgM anti-HNK-1 paraproteins in polyneuropathy.** American Academy of Neurology 69. Annual Meeting, Boston, USA (2017).

2. Damoiseaux J, Mallet K, van Beers J, Hahn M, Krause C, Hormann W, Fechner K. **Performance analysis of automated evaluation of anti-nuclear antibody indirect immunofluorescence tests in a routine setting.** 13. Dresden Symposium on Autoantibodies, Dresden, Deutschland (2017).

3. Efthymiou G, Liaskos C, marou E, Simopoulou T, Scheper T, Meyer W, Bogdanos DP, Sakkas LI. **Antibody responses against human cytomegalovirus antigens in patients with systemic sclerosis.** 13. Dresden Symposium on Autoantibodies, Dresden, Deutschland (2017).

4. Gkoutzourelas A, Liaskos C, Scheper T, Meyer W, , Bogdanos DP, Sakkas LI. **Epitope mapping of anti-Ro52 antibody responses in patients with autoimmune rheumatic diseases reveals differential epitope mapping.** 13. Dresden Symposium on Autoantibodies, Dresden, Deutschland (2017).

5. Hahn S, Trendelenburg G, Scharf M, Denno Y, Brakopp S, Teegen B, Probst C, Wandinger KP, Buttmann M, Szabados F, Dahl vom M, Kümpfel T, Eichhorn P, Gold HJ, Jarius S, Melzer N, Stöcker W, Komorowski L. **Identification of the flotillin-1/2 heretocomplex as a target of autoantibodies in multiple sclerosis.** American Academy of Neurology 69. Annual Meeting, Boston, USA (2017).

6. Herbst V, Brix B, Block M. **New automated chemiluminescence immunoassay for CSF beta-amyloid determination.** 11. International Conference on Alzheimer's and Parkinson's Disease, Wien, Österreich (2017).

7. Herbst V, Brix B, Vanderstichele HM. **A novel colorimetric ELISA for quantification of tau, phosphorylated at threonine 181, in cerebrospinal fluid.** Alzheimer´s Association International Conference 2017, London, England (2017).

8. Kade S, Strippel C, Teegen B, Miske R, Scharf M, Denno Y, Probst C, Radzimski C, Stöcker W, Melzer N, Komorowski L. **Identification of the CNTN1/CASPR complex as the target of autoantibodies in a patient with chronic inflammatory demyelinating polyneuropathy.** American Academy of Neurology 69. Annual Meeting, Boston, USA (2017).

9. Kosanke S, Harder M, Cavalar M, Brasch J, Nenoff P, Uhrlaß S, Gräser Y. **Performance test of the DNA microarray "EUROArray Dermatomycosis".** Association for Molecular Pathology 2017 Annual Meeting, Salt Lake City, USA (2017).

10. Krüger S, Furhmann T, van Beek N, Probst C, Komorowski L, Lemcke S, Dähnrich C, Schlumberger W, Zillikens D, Stöcker W, Schmidt E, Rentzsch K, International Autoimmune Diseases Study Group. **Multicenter prospective study on multivariant diagnosis of autoimmune bullous dermatoses using the Biochip technology.** Scientific Conference of the International Pemphigus & Pemphigoid Foundation, Lübeck, Deutschland (2017).

11. Oesterreich B, Klemens O, Fraune J, Streit A, Warnecke JM, Steinhagen K. **Novel ELISA using antigens from Strongyloides papillosus instead of S. ratti exhibit increased serological specificity.** 27. ECCMID, Wien, Österreich (2017).

12. Rohwer S., Denno Y, Weimann A, Stoecker W, Suer W. **Identification of a major allergen from Macadamia nut.** International Symposium on Molecular Allergology 2017, Luxemburg (2017).

13. Rudolph S, Kouba M, Sack U, Stöcker W, Conrad K. **Anti-DDPX antibody associated encephalitis in a patient with SLE and CVID.** 13. Dresden Symposium on Autoantibodies, Dresden, Deutschland (2017).

14. Scharf M, Miske R, Kade S, Hahn S, Begemann N, Denno Y, Probst C, Teegen B, Borowski K, Stöcker W, Komorowski L. **The role of mass spectrometry in the identification of autoantibodies as targets in neurological autoimmune diseases.** 50. Jahrestagung der Deutschen Gesellschaft für Massenspektrometrie, Kiel, Deutschland (2017).

15. Scherberich J, Delgado GE, Kleber M, Scharnagl H, Krämer BK, Herbst V, Block M, Christensen EI, Nockher W, Schlumberger W, März W. **Serum uromodulin: an early diagnostic and prognostic tissue-specific marker of kidney injury.** Symposium Biomarkers of the Cardiorenal axis, DACH-Gesellschaft, Mannheim, Deutschland (2017).

16. Steinhagen K, Lattwein E, Fraune J, Schlumberger W, Warnecke J. **Absence of specific IgM in week six post symptom onset in a patient with confirmed Zika virus infection.** 1. International Conference on Zika Virus, Washington, USA (2017).

17. Steinhagen K, Sendscheid O, Klemens JM, Fraune J, Schlumberger W. **Combined detection of specific IgG and IgM antibodies for a reliable screening for West-Nile virus infections.** 33. Clinical Virology Symposium of the American Society for Microbiology, Savannah, USA (2017).

18. Vanderstichele H, Chassaing E, Demeyer L, Pannee J, Herbst V, Bodnar-Wachtel M, Stoops E, Hansson O, Blennow K. **Differences in analytical selectivity of β-amyloid (1-42) immunoassays explains discordant results in study comparisons.** Alzheimer's Association International Conference 2017, London, England (2017).

19. Waters P, Komorowski L, Brilot F, Pittock SJ, Probst C, Probst M, Reindl M. **Multicentre MOG antibody detection.** 13. Dresden Symposium on Autoantibodies, Dresden, Deutschland (2017).

20. Wilhelm N, Klemens JM, Steinhagen K, Schlumberger W. **New diagnostic markers for differentiation of acute and convalescent human cytomegalovirus infections.** 27. ECCMID, Wien, Österreich (2017).

21. Danckwardt M, Lechner M, Sumpf T, Gerlach G, Morrin M, Rateike M, Stoecker W, Voigt J. **Fully integrated IFA workflow: EUROPattern Microscope Live and EuroLabOffice 4.0.** PerkinElmer Innovation Summit, Boston, USA (2018).

22. Dibbern J, Schmidt L, Goerl M, Schuetze T, Huth B, Scheper T, Meyer W. **EUROTide Anti-Borrelia burgdorferi: A newly developed miniaturized line immunoblot for the serological detection of specific antibodies in Lyme disease.** PerkinElmer Innovation Summit, Boston, USA (2018).

23. Dunphy J, Kramp SL, Johannsen N, Hamann P, Sendscheid O, Daehnrich C, Schlumberger W, McHugh N. **Comparison of a conventional and a nucleosome linger-based anti-dsDNA ELISA.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

24. Efthymiou G, Liaskos C, Marou E, Dardiotis E, Tsimourtou V, Scheper T, Meyer W, Bogdanos DP, Hadjigeorgiou G, Sakkas LI. **The Epstein barr virus infection in systemic sclerosis.** Annual European Congress of Rheumatology 2018, Amsterdam, Niederlande (2018).

25. Ehlers A, Brix B, van Bokhorst J, Blankestijn M, Rohwer S, Le T, Weimann A, Suer W, Otten H. **Hazelnut and walnut co-allergy frequently occurs in patients with objective symptoms.** Food Allergy and Anaphylaxis Meeting, Kopenhagen, Dänemark (2018).

26. Ehlers AM, Strauß M, Brix B, Blankestijn MA, Le T, Suer W, Otten HG, Knulst AC. **Oleosins have no additional value in the diagnosis of sesame allergy in adults.** Congress of the European Academy of Allergy and Clinical Immunology, München, Deutschland (2018).

27. Fechner K, Komorowski L, Teegen B, Niemann S, Sendscheid O, Probst C, Stoecker W. **DNA-bound lactoferrin is the major target for pANCA in ulcerative colitis.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

28. Feirer C. **EUROPath Microscope: Automated whole-slide scanning analysis.** PerkinElmer Innovation Summit, Boston, USA (2018).

29. Feirer C, Rateike M, Huettig A, Stoecker W. **Fully automated surface-inspecting inverted microscope for cell culture analysis.** PerkinElmer Innovation Summit, Boston, USA (2018).

30. Fraune J, Hahn M, Lederer S, Lattwein E, Mielke J, Gerlach S, Sendscheid O, Probst C, Fechner K, Voigt J, Stoecker W. **Computer-aided immunofluorescence microscopy of recombinant cell-based IIFT in neurological diagnostics.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

31. Fraune J, Hahn M, Lederer S, Lattwein E, Mielke J, Gerlach S, Sendscheid O, Probst C, Fechner K, Voigt J, Stoecker W. **Computer-aided immunofluorescence microscopy of recombinant cell-based IIFT in neurological diagnostics.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

32. Gerlach S, Affeldt K, Pototzki L, Krause C, Jahnke A, Voigt J, Fraune J, Sendscheid O, Fechner K, Stoecker W. **Evaluation of Crithidia luciliae IFT can be reliably automated with EUROPattern.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

33. Gerlach S, Affeldt K, Pototzki L, Krause C, Jahnke A, Voigt J, Fraune J, Sendscheid O, Fechner K, Stoecker W. **Evaluation of Crithidia luciliae IFT can be reliably automated with EUROPattern.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

34. Gerlach S, Danckwardt M, Marzahl C, Lederer S, Mielke J, Fechner K, Stoecker W, Voigt J. **Deep artificial neural networks for pattern recognition in indirect immunofluorescence microscopy.** PerkinElmer Innovation Summit, Boston, USA (2018).

35. Gkoutzourelas A, Liaskos C, Mytilinaiou MG, Scheper T, Meyer W, Sakkas LI, Bogdanos DP. **Anti-Ro60 seropositivity determines anti-Ro52 epitope mapping outcome in patients with autoimmune rheumatic diseases.** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

36. Gkoutzourelas A, Liaskos C, Papadopoulos V, Mytilianaiou MG, Christina K, Scheper T, Meyer W, Bogdanos DP, Papandreou C, Sakkas LI. **Anti-Ro60 seropositivity determines epitope specificity of anti-Ro52 antibodies in patients with autoimmune rheumatic and malignant diseases.** Annual European Congress of Rheumatology 2018, Amsterdam, Niederlande (2018).

37. Hahn S, Trendelenburg G, Scharf M, Denno Y, Brakopp S, Teegen B, Probst C, Wandinger KP, Buttmann M, Szabados F, von Dahl M, Kuempfel T, Eichhorn P, Gold H, Paul F, Jarius S, Melzer N, Sendscheid O, Stoecker W, Komorowski L. **Identification of the flotillin-1/2 heterocomplex as a target of autoantibodies in multiple sclerosis.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

38. Herbst V, Brix B, Sendscheid O, Block M. **New automated chemiluminescence immunoassays for CSF beta-amyloid determination.** 70. Annual Scientific Meeting of the American Ass. for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

39. Herbst V, Brix B, Stoops E, Busse S, Sendscheid O, Vanderstichele H. **A novel ELISA for the quantification of tau phosphorylated at threonine 181 in cerebrospinal fluid.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

34. Huth B, Schuetze T, Stanisak AK, Stoecker W. MERGITE! Fully automated washing of slides in indirect immunofluorescence. PerkinElmer Innovation Summit, Boston, USA (2018).

41. Klemens O, Boethfuer J, Wong SJ, Klemens JM, Binnenkade L, Sendscheid O, Steinhagen K. **Development of Anti-Powassan ELISA for the detection of specific antibodies based on different antigenic substrates.** 34. Clinical Virology Symposium of the America Society for Microbiology. West Palm Beach, USA (2018).

42. Klemens O, Pannwitt C, Hachid A, Klemens JM, Binnenkade L, Sendscheid O, Fraune J, Schlumberger W, Steinhagen K. **Development of a novel NS1-based ELISA for the detection of specific IgG antibodies against West-Nile virus.** 34. Clinical Virology Symposium of the America Society for Microbiology. West Palm Beach, USA (2018).

43. Klemens O, Pannwitt C, Hachid A, Klemens JM, Fraune J, Schlumberger W, Steinhagen K. **Detection of IgG antibodies against West-Nile virus NS1 antigen.** 28. European Congress of Clinical Microbiology and Infectious Diseases, Madrid, Spanien (2018).

44. Klemens O, Pannwitt C, Hachid A, Klemens JM, Sendscheid O, Fraune J, Schlumberger W, Steinhagen K. **Development of a novel NS1-based ELISA for the detection of specific IgG antibodies against West-Nile virus.** Annual Meeting of the Association of Public Health Laboratories, Pasadena, USA (2018).

45. Liaskos C, Patrikiou E, Zafiriou, Gkoutzourelas A, Scheper T, Meyer W, Roussaki-Schulze A, Alxiou I, Sakkas LI, Bogdanos DP. **ANA-specific antigen recognition in patients with psoriasis and psoriatic arthritis using multiplex line immunoassay specifically designed for ANA assessment as per ICAP.** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

46. Mende M, Cho E, Shen G, Karayev D, Metzger AL, Morris RI, Kramp SL, Daehnrich C, Sendscheid O, Schlumberger W. **Presence of anti-cN-1A (Mup44, NT5c1A) IgG is specific for Sporadic Inclusion Body Myositis.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

47. Mende M, Cho E, Shen G, Karayev D, Metzger AL, Morris RI, Kramp SL, Sendscheid O, Daehnrich C, Schlumberger W. **Presence of anti-cN-1A (Mup44, NT-5c1A) IgG is specific for Sporadic Inclusion Body Myositis.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

48. Menge B, Pfautsch S, Klemens O, Streit A, Sendscheid O, Klemens JM, Steinhagen K. **Novel ELISA based on antigens from Strongyloides papillosus instead of Strongyloides ratti exhibits increased serological specificity.** Annual Meeting of the Association of Public Health Laboratories, Pasadena, USA (2018).

49. Menge B, Pfautsch S, Klemens O, Streit A, Sendscheid O, Klemens JM, Steinhagen K. **Novel ELISA based on antigens from Strongyloides papillosus instead of Strongyloides ratti exhibits increased serological specificity.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

50. Meyer W, Scheper T, Komorowski L, Meinck HM, Sendscheid O, Schlumberger W, Stoecker W. **HEK293-expressed GAD65 complements immunoblot for the comprehensive confirmation of anti-neuronal antibodies.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

51. Meyer W, Scheper T, Komorowski L, Ott A, Meinck HM, Sendscheid O, Schlumberger W, Stoecker W. **HEK293-expressed GAD65 complements immunoblot for the comprehensive confirmation of anti-neuronal antibodies.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

52. Miron N, Larson C, Axel K, Wilcke A, Steller U, Amirbeagi F. **EUROArray HLA-DQ2/DQ8-h Direct and Olerup SSP for the determination of coeliac disease-associated risk factors HLA-DQ2.2,-DQ2.5 and -DQ8 – a comparative study.** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

53. Miske R, Scharf M, Hahn S, Kade S, Denno Y, Begemann N, Teegen B, Mindorf S, Dettmann I, Fraune J, Probst C, Radzimski C, Brakopp S, Sendscheid O, Stoecker W, Komorowski L. **A combination of histo-immunoprecipitation, mass spectrometry and recombinant cell-based indirect immunofluorescence identifies novel neural autoantigens.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

54. Miske R, Scharf M, Hahn S, Kade S, Denno Y, Begemann N, Teegen B, Mindorf S, Dettmann I, Fraune J, Probst C, Radzimski C, Brakopp S, Sendscheid O, Stoecker W, Komorowski L. **A combination of histo-immunoprecipitation, mass spectrometry and recombinant cell-based indirect immunofluorescence identifies novel neural autoantigens.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

55. Moraes Soane M, Freitas Henriques D, Abreu Lima J, Caricio Martins L, Wilhelm N, Klemens O, Steinhagen J. **Novel screening ELISA for sensitive detection of Mayaro virus-infected patients.** 7. International Meeting on Emerging Diseases and Surveillance, Wien, Österreich (2018).

56. Mytilianiou MG, Gkoutrourelas A, Liaskos C, Efthymiou G, Scheper T, Meyer W, Katsiari C, Bogdanos DP, Sakkas LI. **Is human cytomegalovirus a viral trigger of anti-Ro52 antibodies in patients with systemic sclerosis and systemic lupus erythematosus?** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

57. Patrikiou E, Liaskos C, Zafiriou E, Efthymiou G, Scheper T, Meyer W, Roussaki-Schulze A, Sakkas LI, Bogdanos DP. **Helicobacter pylori antigen specific antibodies in psoriatic arthritis.** Annual European Congress of Rheumatology 2018, Amsterdam, Niederlande (2018).

58. Patrikiou E, Liaskos C, Zafiriou E, Gkoutzourelas A, Simopoulou T, Mavropoulos A, Scheper T, Meyer W, Roussaki-Schulze A Bogdanos DP, Sakkas LI. **Anti-DFS70 antibodies in patients with psoriasis and psoriatic arthritis.** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

59. Rottmann N, Feirer C, von Drathen A, Eggert-Gospos D, Buschtez M, Rieckhoff N, Kroeger C, Stoecker W. **Revolution in pathology – Efficient automatic workflows by means of EUROPath system.** PerkinElmer Innovation Summit, Boston, USA (2018).

60. Schmidt L, Scheper T, Meyer W, Binnenkade L, Sendscheid O, Warnecke JM. **Recombinant antigens improve sensitivity and allow species differentiation in echinococcosis diagnostics.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

61. Steinhagen K, Wilhelm N, Sendscheid O, Schlumberger W. **Testing anti-Zika virus NS1 IgA additionally to IgM increases sensitivity in acutely infected patients from region endemic for flaviviruses.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

62. Steinhagen K, Wilhelm N, Warnecke JM, Schlumberger W. **Testing anti-Zika virus NS1 IgA additionally to IgM increases sensitivity in acutely infected patients from region endemic for flaviviruses.** 18. International Congress on Infectious Diseases, Buenos Aires, Argentinien (2018).

63. Stoecker W, Probst C, Teegen B, Rentzsch K, Borowski K, Schlumberger W, Sendscheid O, Fraune J, Komorowski L. **Multiparameter autoantibody screening in the diagnosis of neurological autoimmune diseases.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

64. Teegen B, Meyer W, Kramp SL, Fraune J, Sendscheid O, Scheper T, Schlumberger W, Stoecker W, Rentzsch K. **Co-occurrence of autoantibodies against DFS70 and autoantibodies associated with rheumatic diseases.** 31. Annual Meeting of the Association of Medical Laboratory Immunologists, Scottsdale, USA (2018).

65. Venkataraman I, Herbst V, Brix B, Stoops E, Vanderstichele H. **Evaluation of certified reference materials for beta-amyloid 1-42 using Euroimmun ELISA and ChLIA.** Alzheimer's Association International Conference, Chicago, USA (2018).

66. Wilhelm N, Klemens JM, Steinhagen K, Binnenkade L, Sendscheid O, Schlumberger W. **New diagnostic markers for differention of acute and convalescent human cytomegalovirus infections.** 34. Clinical Virology Symposium of the America Society for Microbiology. West Palm Beach, USA (2018).

67. Wilhelm N, Klemens JM, Steinhagen K, Sendscheid O, Schlumberger W. **New diagnostic markers for differentiation of acute and convalescent human cytomegalovirus infections.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

68. Zafiriou E, Patrikiou E, Liaskos C, Efthymiou G, Scheper T, Meyer W, Roussaki-Schulze A, Bogdanos DP. **Helicobacter pylori CagA and VacA seropositivity in patients with psoriasis.** 11. Autoimmunity Congress, Lissabon, Portugal (2018).

69. Zeng Z, Miske R, Scharf M, Denno Y, Sendscheid O, Probst C, Stoecker W, Komorowski L. **UFO-ANA: Cryptic antinuclear autoantibody target antigens revealed.** 70. Annual Scientific Meeting of the American Association for Clinical Chemistry and Clinical Lab Expo, Chicago, USA (2018).

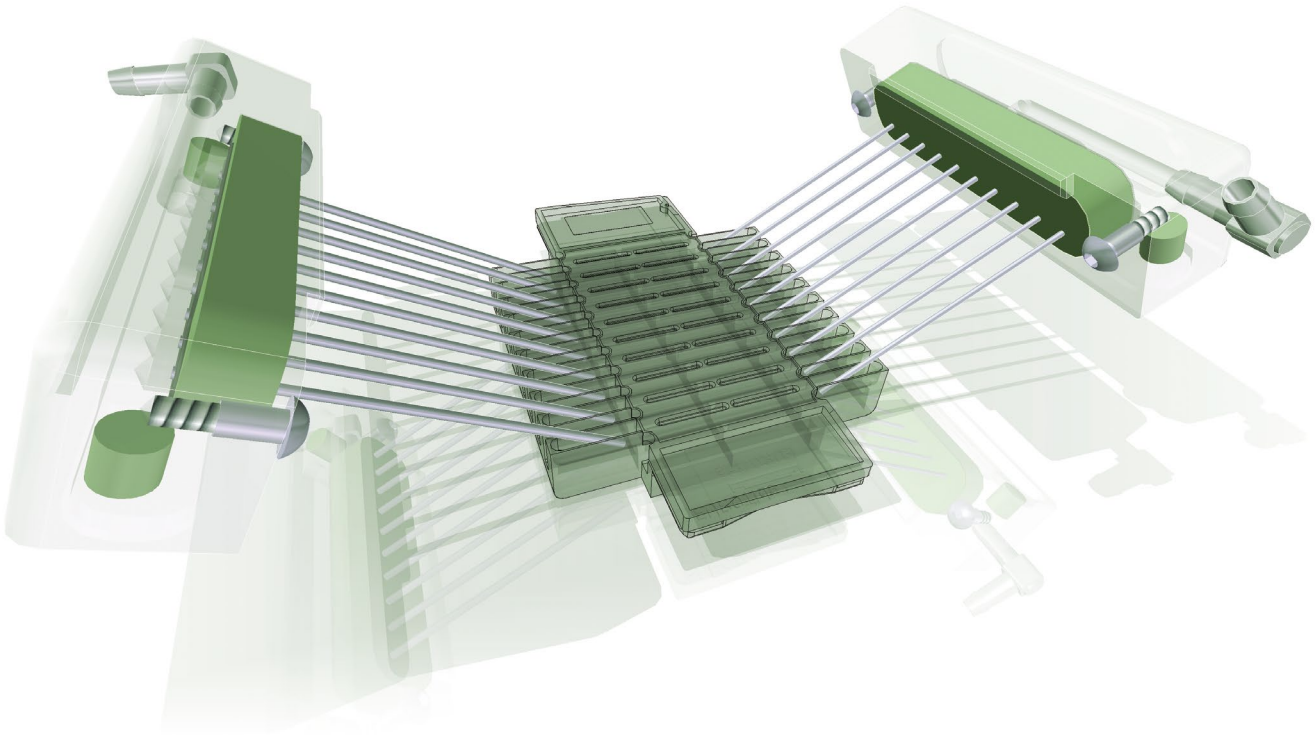
Research and development

For more information on this subject scan the QR code or enter the Quick Link code q114 at www.euroimmun.com

Patents

To ensure investment in research and development, the company pursued further patent activity with EUROIMMUN AG employees as inventors in 2017 and 2018. A total of 47 new patent applications was published. Compared to the previous year, the number of patent applications again increased significantly.

For patents from previous years, the patent protection was maintained and expanded through follow-up applications in the respective priority year. The applications concern developments in instrument and process engineering as well as new antigens for the diagnosis of autoimmune diseases. The brand portfolio was expanded by one national and one international brand application, respectively.



Published Patent Applications 2017/2018

1. Buschtez M, Rottmann N, Kayser K. **Tissue cassette.** Chinese and European patent application CN106560409A (filed 2016) and EP 3150278 (filed 2015).
2. Kaffka C. **Incubation tray**. Singaporean patent application 11201708466V (filed 2015).
3. Kemsies D, Schröder D, Nevermann S. **Incubation tray.** Hong Kong patent application 1219307A (filed 2016).
4. Lambeau G, Tomas N, Seitz-Polski B, Stahl RAK. **Methods and kits for monitoring membranous nephropathy**. Chinese, Japanese and European patent application CN106999547A (filed 2015), 2017-524130 (filed 2015) and EP3172567 (filed 2015).
5. Pannhoff H, Feirer C. **Calibration standard for a device for image-based representation of biological material**. Japanese and Brazilian patent application 2017-502280 (filed 2014) and BR112016013866-0 (filed 2014).
6. Scheper T, Meyer W. **Diagnostic immunodetection of autoantibodies to gangliosides**. European patent application EP 3124972 (filed 2015).
7. Scheper T, Meyer W, Schmidt L, Gottstein B, Spiliotis M. **A novel assay for the diagnosis of helminth infections**. European and Chinese patent application EP3156798 (filed 2015) and CN106596964A (filed 2016).
8. Steinhagen K, Deerberg A, Lattwein E, Radzimski C, Böthfür J. **An immunoassay for the diagnosis of viral infections**. International patent application WO2017/144173 (filed 2017).
9. Steinhagen K, Deerberg A, Lattwein E, Radzimski C, Böthfür J. **An immunoassay for the diagnosis of viral infections**. International patent application WO2017/144174 (filed 2017).
10. Stöcker W. **Improved apparatus and method for reaction between a solid and a liquid phase**. Japanese and Hong Kong patent application 2017-500585A (filed 2014) and 1223152A (filed 2014).
11. Stöcker W, Komorowski L, Scharf M, Miske R, Denno Y, Dettmann IM, Probst C, Hahn S, Kade S, Trendelenburg G. **Diagnosis of a neuroautoimmune disease**. Japanese patent application 2017-223636 (filed 2016).
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Detection methods

Indirect immunofluorescence

EUROIMMUN IFT: unrivalled quality and diversity

For more information on this subject scan the QR code or enter the Quick Link code q115 at www.euroimmun.com

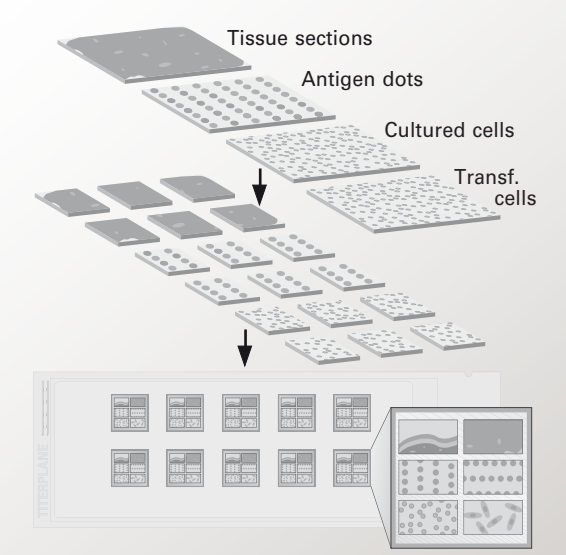
EUROIMMUN IFT: unrivalled quality and diversity

Immunofluorescence tests from EUROIMMUN: high-tech, not old-fashioned! Numerous innovations contribute to the standardisation and modernisation of indirect immunofluorescence:

■ **Activation technique:** Physically or chemically activated cover glasses are coated with cultured cells or tissue sections. Frozen tissue sections are fixed to the glass surface by covalent bonding. This increases the adhesion by more than 100 fold, preventing detachment of the sections.

■ **BIOCHIP Technology:** Cover glasses coated with biological substrates are cut mechanically into millimetre-sized fragments (BIOCHIPs). Ten or more first-class preparations of consistent quality can be obtained per tissue section, for cultured cell substrates even several thousands.

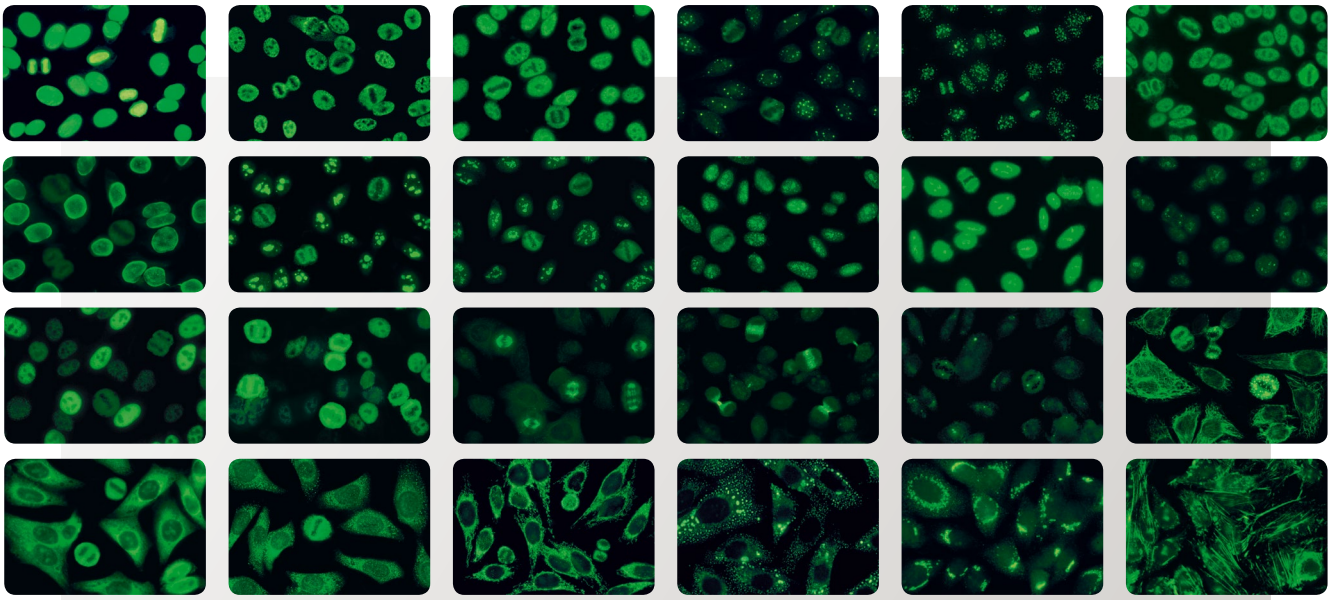
■ **BIOCHIP Mosaics:** When multiple BIOCHIPs coated with different substrates are arranged in one reaction field, antibodies against various organs or infectious agents can be investigated simultaneously. Comprehensive antibody profiles can be easily established (multiplex) and the results are verified reciprocally on different substrates.



BIOCHIP Technology and Mosaics

■ **TITERPLANE Technique:** The samples or reagents are first pipetted onto the reaction fields of a reagent tray. The slides are then placed into recesses of the reagent tray, where all BIOCHIPs come into contact with the liquids, and the individual reactions begin simultaneously. As the fluids are confined in a closed space, there is no need for a conventional humidity chamber.

■ **Automation:** EUROIMMUN offers a range of IFT automation options for both low and high throughput, from sample dilution to fully automated evaluation of fluorescence images, including archiving.



Indirect immunofluorescence: one substrate (here: HEp-2 cells) – many antibodies to investigate

Microtiter ELISA

EUROIMMUN ELISA: quantitative and precise

For more information on this subject scan the QR code or enter the Quick Link code q116 at www.euroimmun.com

EUROIMMUN ELISA: quantitative and precise

When precision is needed: Antibody detection using ELISA provides quantitative results – ideally suited for monitoring disease courses and interpreting borderline results.

- **Optimised for fully automated processing**

- **Simple handling:**
  Break-off microplate wells
  Ready-to-use reagents (no mixing or diluting necessary)
  Bar- and colour-coded reagents, largely exchangeable between different lots and between different parameters
  Standardised incubation conditions for the majority of parameters

- **RF absorbent** included in sample buffer (IgM tests) – no extra costs

- **Incubation protocols** for all tests integrated in EUROIMMUN Analyzers:
  no additional programming necessary

- **Pre-preparation of microplates** with allergy parameters (Allercoat™ 6 system)

- **Comprehensive validation** of test systems for EUROIMMUN Analyzers
  in accordance with directive 98/79/EC and on the basis of EN ISO 13485:2003

- **Detailed validation documents** available for virtually all parameters

- **Over 800 parameters** – all test systems from one manufacturer:
  >70 autoantibody parameters
  >120 infectious parameters
  >650 allergy parameters

Chemiluminescence immunassays (ChLIA)

EUROIMMUN ChLIA: Random access with chemiluminescence immunoassays

For more information on this subject scan the QR code or enter the Quick Link code q116 at www.euroimmun.com

EUROIMMUN ChLIA: Random access with chemiluminescence immunoassays

Immunoassays for autoimmune, infection and allergy diagnostics and antigen detection

- **Bead technology:** Antigens are immobilised on the surface of magnetic particles. The detection of the immunological reaction between antigen and specific antibodies in patient serum is based on a chemical reaction which leads to a quantitative emission of light, the so-called chemiluminescence.

- **Fast analyses:** The ChLIA technology allows even shorter reaction times compared to immunoenzymatic methods, so that the total duration of the analysis amounts to less than 30 minutes.

- **Optimised for fully automated processing:** The patient samples can be processed fully automatically, from pipetting to result evaluation – also in connection with a sample line.

- **Simple and safe handling:** Ready-for-use reagent cartridges and calibrators and automated transmission of quality control data via RFID chips enable error-free and quick loading with little manual effort.

- **Efficient workflows:** Optimal processing on random access instruments, with continuous loading of samples and processing of emergency (STAT) samples. EUROIMMUN ChLIA tests enable quantification of test results based on a calibration curve which is stable over several weeks, so that capacities and reagents are saved.

- **Broad dynamic analysis range:** Owing to the high signal intensity at high sensitivity and specificity, the EUROIMMUN ChLIA tests allow quantification of antibodies from very low to very high concentrations based on the saved calibration curve.


OBID® RFID by FEIG ELECTRONIC

EUROASSAY

Line blots in chip format

For more information on this subject scan the QR code or enter the Quick Link code q117 at www.euroimmun.com

Line blots in chip format

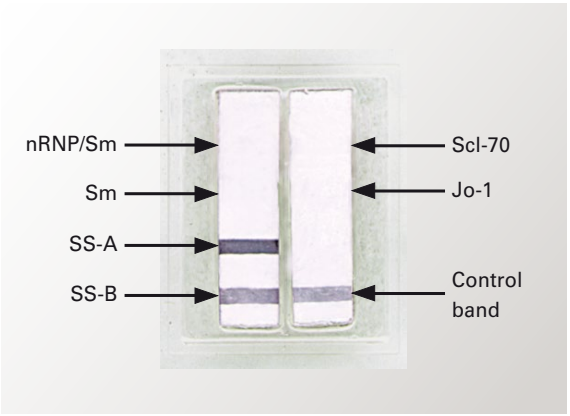
Easy handling through incubation using the TITERPLANE Technique, **reliable and simple evaluation**:

■ **Several patient samples** can be analysed next to each other and simultaneously **on one slide**.

■ **Quick results:** The total time for analysis is 100 minutes. During washing the reagents are pipetted onto the reagent tray for the next incubation step. All incubation steps are carried out at room temperature. Shaking of the slides and reagent tray on a rotary shaker provides optimal sensitivity.

■ **Low consumption of reagents:** 50 µl of diluted serum or reagent solution per application is sufficient.

■ **At a glance:** Results are evaluated visually, thus there are no investment costs for photometers or similar devices. The antigen lines are located at precisely defined positions. Correct performance of the individual incubation steps is indicated by staining of the control band. Positive and negative results can be distinguished from each other reliably and easily. The intensity of bands generally correlates with the antibody titer.



■ **Monospecific:** The antigens used are purified antigens which are mostly isolated by affinity chromatography. The membrane strips do not contain any superfluous proteins that might lead to unspecific positive results.

■ **Archivable:** Incubated EUROASSAY slides can be stored for long periods, with easy documentation of results.


EUROIMMUN
ANTI-ENA PROFILPLUS
EUROASSAY
ANTI-DSDNS
1
2
3
4
5

EUROLINE

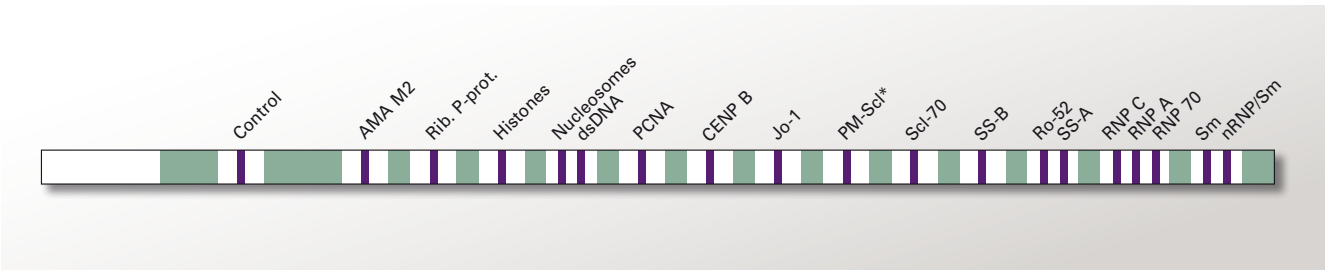
Line blots for comprehensive antibody profiles

For more information on this subject scan the QR code or enter the Quick Link code q118 at www.euroimmun.com

Multiparameter line blots for comprehensive antibody profiles

Uncomplicated test performance, reliable and simple evaluation:

- **Quick:** The total time for analysis is 105 minutes. All incubation steps are carried out at room temperature.
- **Automatable incubation:** with EUROBlotOne or EUROBlotMaster.
- **Secure:** The antigen lines are located at precisely defined positions. Correct performance of the individual incubation steps is indicated by staining of the control band contained on each EUROLINE test strip. Positive and negative results can be distinguished from each other reliably and easily. The intensity of bands correlates with the antibody titer.
- **Monospecific:** The antigens used are purified antigens, mostly isolated by affinity chromatography, or antigen extracts. The membrane strips do not contain superfluous proteins that may lead to unspecific positive results.
- **Multiparameter analysis:** The use of an antigen spectrum that is specifically tailored to the diagnostic requirements increases the serological detection rate.
- **Evaluation:** The EUROLineScan program developed by EUROIMMUN allows standardised evaluation of EUROLINE test strips, easy data management and detailed documentation of results. First, the incubated EUROLINE test strips are scanned by a flatbed scanner or photographed by a camera system. EUROLineScan recognises the position of the strips, even if they have been placed inexactly, identifies the bands, and measures their intensity. Finally, the results are saved together with the image data and a separate results sheet can be issued for each patient. EUROLineScan can be integrated easily into EUROLabOffice or any other LIMS for optimal data communication.




Bor-M / 97 - 25
Bor-G / 5 - 40
Bor-G / 5 - 38
Bor-G / 5 - 37
Bor-G / 5 - 36
EBV-2/ 136 - 91

Westernblot/EUROLINE-WB

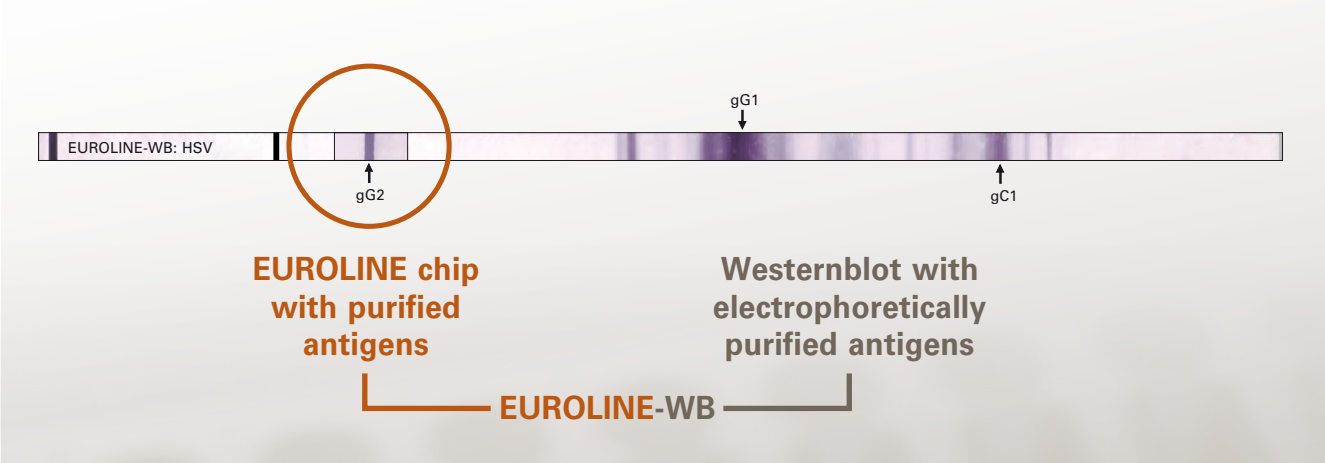
Reliable differentiation with Westernblots

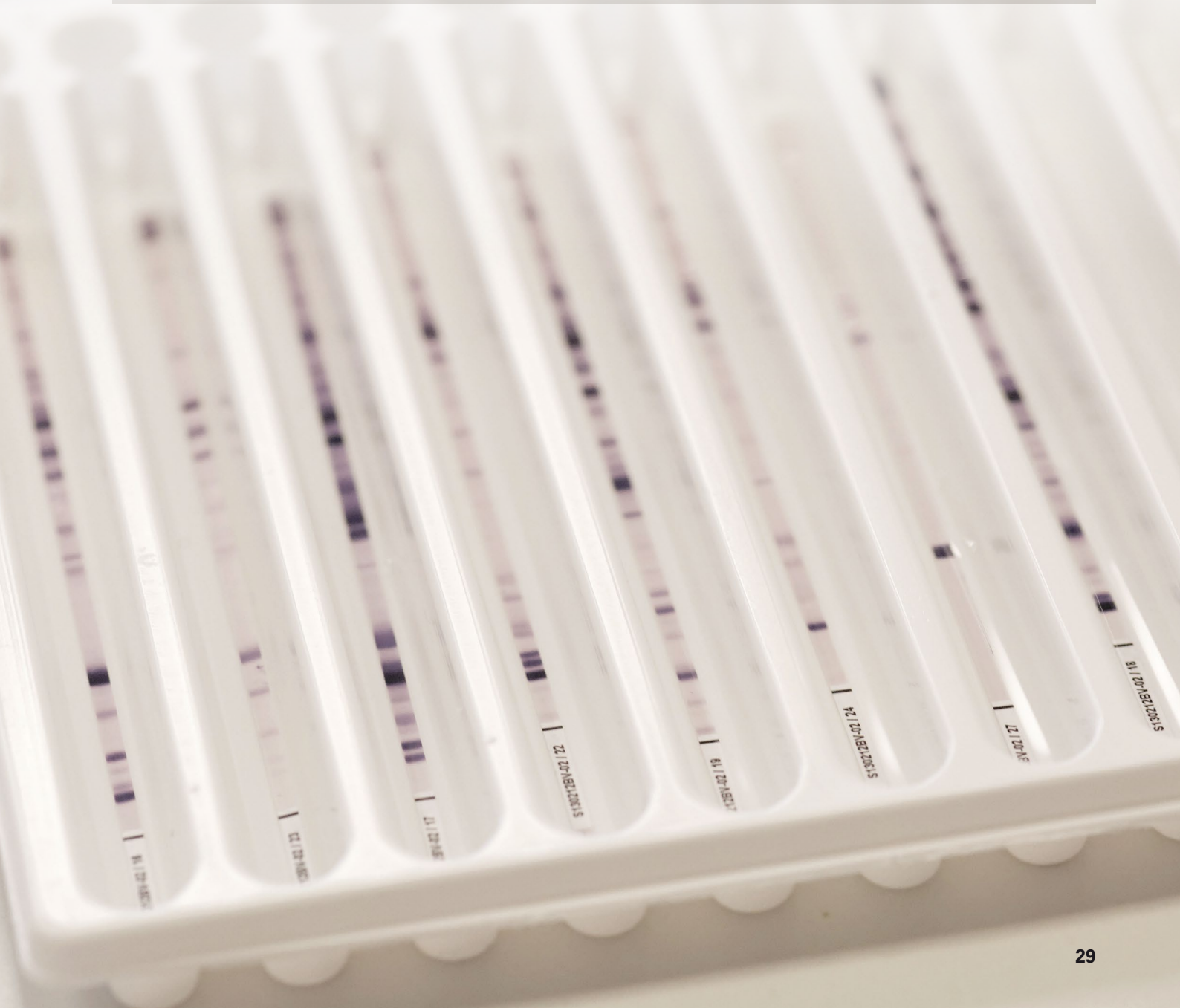
For more information on this subject scan the QR code or enter the Quick Link code q119 at www.euroimmun.com

Reliable differentiation with Westernblots

High diagnostic value:

- **Quick:** Total time for analysis is around 115 minutes. All incubation steps are carried out at room temperature.
- **Automatable incubation:** with EUROBlotOne or EUROBlotMaster.
- **Precise evaluation:** The bands are identified by means of a lot-specific evaluation template provided with each test kit. Each electrophoresis gel has a unique lot number. Thus, mix-up between bands is prevented.
- **Secure:** Each test kit comes with a positive blot strip from the same strip lot, which has been incubated with a reference serum. The incubation of a positive control serum can thus be omitted. The blot strips are numbered to avoid mix-ups. No extra labelling is needed. Correct performance of the individual incubation steps is indicated by staining of a control band on the lower end of the strip.
- **Qualitative:** Positive und negative reactions can be distinguished from each other reliably and easily. The intensity of the bands generally correlates with the antibody titer.
- **Method of choice:** in cases in which positive results from a screening test (indirect immunofluorescence or microplate ELISA) need confirmation or differentiation.
- **EUROLINE-WB** is a **combination of Westernblot and line blot**: Proteins from a whole-antigen extract are separated by gel electrophoresis according to molecular mass and transferred onto a nitrocellulose membrane (Westernblot). Highly purified native or recombinant antigens are then applied as lines to the Westernblot strips (EUROLINE membrane chips).
- **Evaluation:** The EUROLineScan program developed by EUROIMMUN allows standardised evaluation of Westernblot-based test strips, easy data management and detailed documentation of results. First, the incubated Westernblot and EUROLINE-WB test strips are scanned by a flatbed scanner or photographed by a camera system. EUROLineScan recognises the position of the strips, even if they have been placed inexactly, identifies the bands, and measures their intensity. Finally, the results are saved together with the image data and a separate results sheet can be issued for each patient. EUROLineScan can be integrated easily in EUROLabOffice or any other LIMS for optimal data communication.


EUROLINE-WB: HSV
gG1
gG2
gC1
EUROLINE chip with purified antigens
Westernblot with electrophoretically purified antigens
EUROLINE-WB



EUROArray

Molecular diagnostics with EUROArrays

For more information on this subject scan the QR code or enter the Quick Link code q120 at www.euroimmun.com

Molecular genetic diagnostics with EUROArrays

Simple test performance, correct results:

■ **EUROArrays are based on BIOCHIP technology:** Quality-controlled batch production of EUROArrays guarantees faultless arrays for exact and reliable diagnostics.

■ **DNA isolation – quicker using the direct method:** Genomic DNA can be extracted with the direct method in a very time- and cost-saving manner. The sample is simply mixed with two extraction reagents provided in the test kit and can then be used directly in the PCR.

■ **Ready-for-use PCR components:** All required reagents are contained in the test kit. No extra components must be purchased. The minimised number of pipetting steps allows quick, efficient and error-free test performance.

■ **EUROArray hybridisation – simple and robust:** The established TITERPLANE Technique allows standardised and simple hybridisation of PCR products with the EUROArray.

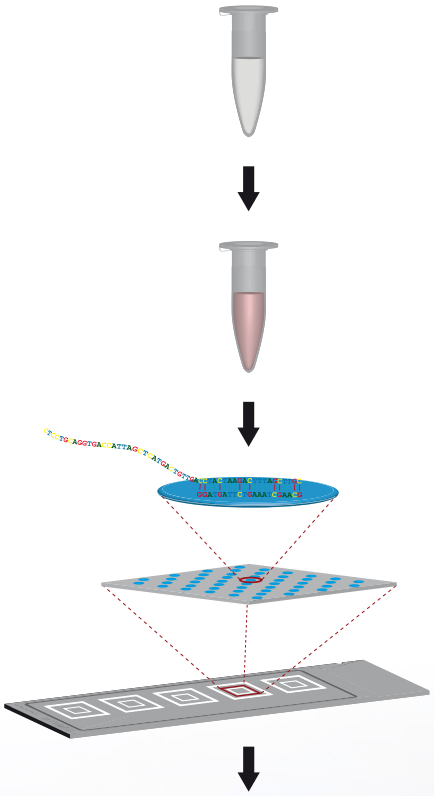
■ **Fully automated, standardised evaluation, generation of results and archiving:** Incubated EUROArrays can be automatically evaluated in a very short time using the EUROArrayScan evaluation system. Only around 5 seconds are required per sample. The evaluation is standardised and correct – results are not dependent on subjective interpretation.

■ **Integrated controls ensure correct test performance:** Many integrated controls ensure the correct test performance for each individual analysis and help to monitor e.g. the sample quality, the rigour of the hybridisation reaction and the absence of cross contamination.

■ **Complete process validated in accordance with IVD directive and CE label:** From sample preparation to issueing of results – DNA extraction, test reagents, EUROArrays, EUROArrayScan evaluation system – the complete process, including evaluation, is validated.

■ **One platform for all applications:** Single-parameter, low-multiplex and high-multiplex analyses are reliable and precise with the EUROArray system.

■ **LIMS connection available:** The EUROArrayScan software is equipped for simple import and export of data and test results.

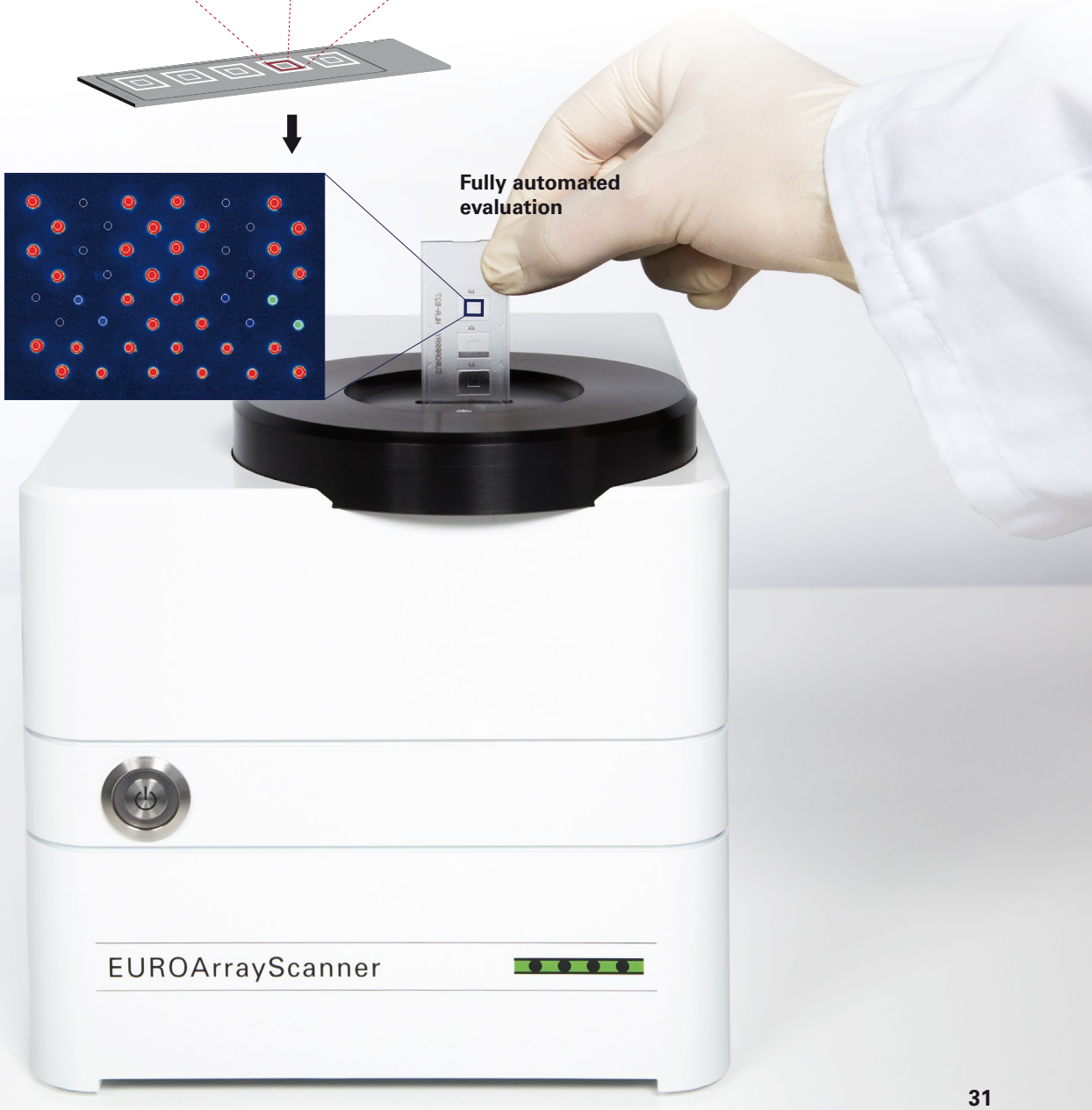


DNA sample

PCR (polymerase chain reaction)

DNA microarray hybridisation

Fully automated evaluation



EURORealTime

EUROIMMUN's expert solution for real-time PCR diagnostics

For more information on this subject scan the QR code or enter the Quick Link code q154 at www.euroimmun.com

EUROIMMUN's expert solution for real-time PCR diagnostics

Simple performance and evaluation with highest result reliability

■ **Fully automated, standardised evaluation, reporting and documentation:** The EURORealTime Analysis Software provides fast, fully automated and objective evaluation of all raw data, including all internal and external controls. Subjective definitions of cut-offs or calculations for the quantification of pathogens are not required.

■ **Convenient guidance through the entire procedure:** Pipetting schemes which are automatically generated by the EURORealTime Analysis Software help to prevent mistakes.

■ **Specific detection of infectious pathogens by Real-Time PCR:** Pathogen-specific primers and probes guarantee exact and reliable direct detection of infectious pathogens based on their gene sequence (DNA/RNA). In addition to the purely qualitative determination, also pathogen quantification in the raw material is possible in selected parameters.

■ **Complete determination in one reaction vessel also for RNA viruses:** With viruses with RNA genome, the required reverse transcription and the real-time PCR detection take place in the same preparation.

■ **Minimised number of pipetting steps owing to ready-for-use PCR components:** All required reagents are included, no extra components must be purchased.

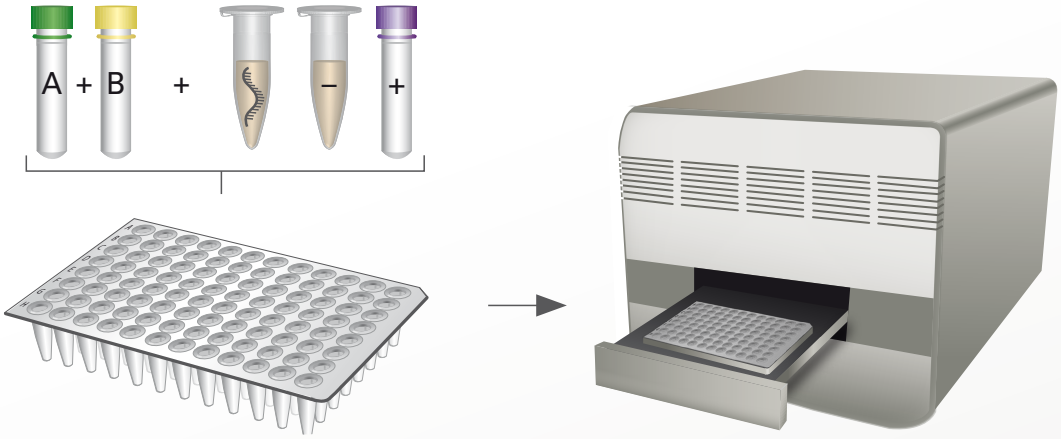
■ **Integrated controls ensure the reliability of the results:** Inhibition and extraction controls to check the efficiency of the nucleic acid isolation and PCR in every preparation and external positive and negative controls to confirm the validity of the entire run.

■ **Complete procedure validated according to IVD directive, CE-labelled:** All steps of the procedure and evaluation are validated (test reagents, EURORealTime Analysis Software).

■ **Prepared LIMS connectivity:** The EURORealTime Analysis Software is set up for simple import and export of data and test results.

RNA/DNA sample

Real-time PCR



Fully automated evaluation and documentation

RIA

EUROIMMUN RIA: high-performance classic

For more information on this subject scan the QR code or enter the Quick Link code q121 at www.euroimmun.com

EUROIMMUN RIA: high-performance classic

Radioimmunoassays (RIA/IRMA) from EUROIMMUN are robust and reliable:

■ **Fast, simplified test performance** with short incubation times, few wash steps and mostly ready-for-use reagents.

■ **Highly specific** through use of optimal antigens and highly suited, established antibodies.

■ **Secure quality management** through supplied controls (including kit-specific reference range) for evaluation of the test.

■ **Large measurement ranges** with very good calibration reduces the need for repeat measurements with other sample dilutions and increases result retrieval.

■ **Comprehensive range of separation methods:** coated tubes (CT), precipitation (P), magnetic separation (MS), polyethylene glycol precipitation (PEG).

■ **Excellent correlation** with comparable test systems using the same analytical specifications.

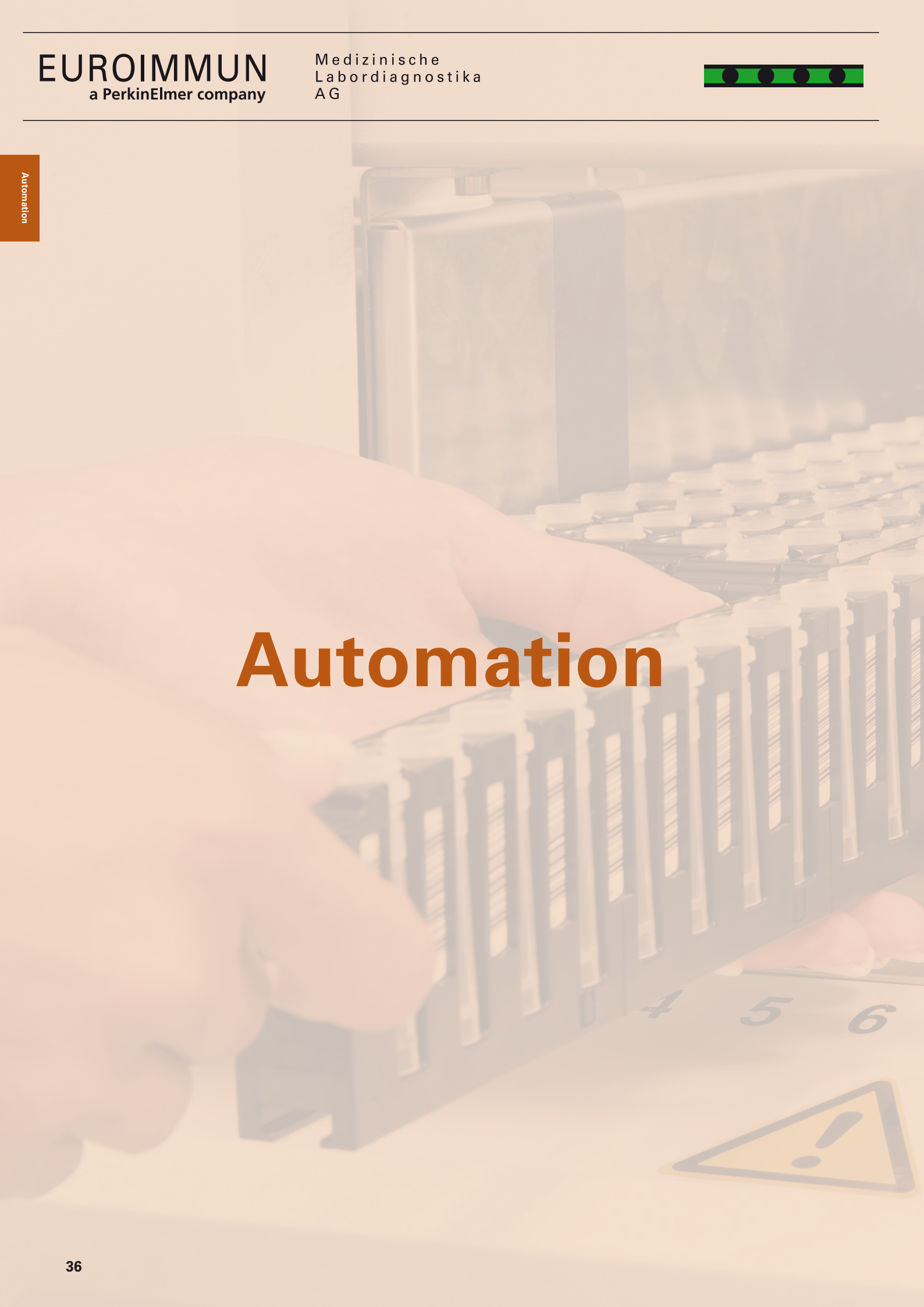
■ **Financially attractive:** Optimised cost-performance ratio through adaptation to requirements.

■ **Connection of the gamma counter to the laboratory management system EUROLabOfffice** simplifies the daily laboratory routine:

– Comprehensive data processing and communication with practice software
– Creation of all work protocols with a mouse click
– Use of automated protocols
– Simple generation and archiving of result reports


0+
0.09
EC
I124
4.1760 d
2-
I125
59.408 d
5/2+
EC
I126
13.11 d
2-
EC, β
Te123
+13 y
Te124
0+
Te125

Automation




EUROIMMUN
SUBSTRATE
7 8 9 10 11

Indirect immunofluorescence

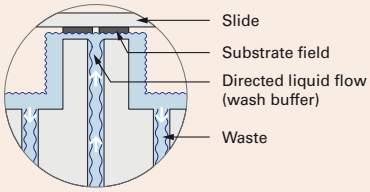
MERGITE! · Sprinter · EUROLabWorkstation IFA · EUROStar · EUROPattern Live Microscope · EUROPattern

For more information on this subject scan the QR code or enter the Quick Link code q144 at www.euroimmun.com

MERGITE!

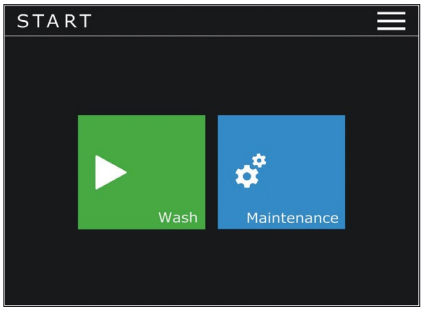
MERGITE! enables, for the first time, standardised and fully automated washing of IIFT slides. The compact tabletop device utilises a directed but gentle liquid flow, which washes up to 50 substrate fields in about 40 seconds with consistent quality and without damage to the substrates. The use of carriers allows convenient switching between incubation and wash stations with just one hand maneuver and without the slides drying out. MERGITE! is equipped with an integrated touch screen and does not require an additional PC.

- **No risk of cross contamination** between substrate fields due to field-by-field washing with directed and controlled liquid flows
- **Brilliant fluorescence signals** due to the standardised, gentle MERGITE! washing procedure



- **Easy and efficient handling** of slides, reagent racks and cover glasses through use of carriers
- **Reduction of required working steps** – no beakers, cuvettes and drying of slides required
- **High efficiency** through simultaneous washing of 50 substrate fields in only about 40 seconds

- **Compact tabletop device** with integrated touch screen
- **Convenient operation** and minimal familiarisation time due to intuitive and user-friendly interface



Product overview

Device	Description	Order number
MERGITE! 10	For 5 slides each with 10 application areas	YG 0064-0101-1
MERGITE! 50	For 1 slide with 50 application areas	YG 0064-0101-2

Indirect immunofluorescence

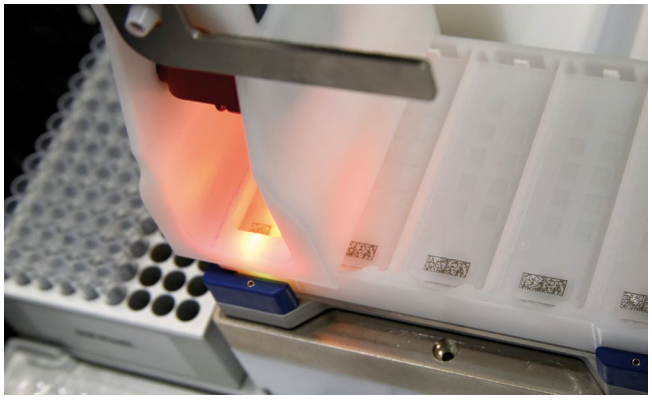
For more information on this subject scan the QR code or enter the Quick Link code q040 at www.euroimmun.com

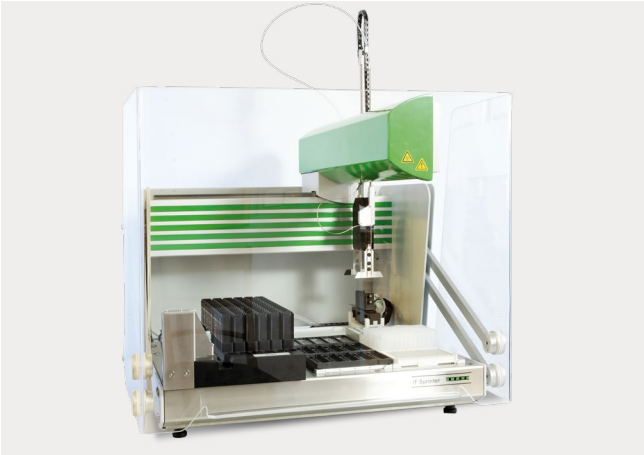
Sprinter

With the IF Sprinter and the Sprinter XL, EUROIMMUN offers flexible solutions for fully automated processing of immunofluorescence tests. The devices perform identification, dilution and transfer of samples, as well as all washing and incubation steps.

Both instruments are available in different configurations depending on the requirements of the laboratory. They can also be used as combination devices for additional processing of ELISAs. The IF Sprinter is suitable for small and medium-sized laboratories, the Sprinter XL for large laboratories.

- **Flexible systems** for fully automated processing of ELISA and immunofluorescence tests on one device
- **Reliability and traceability** due to standard integrated barcode reader for sample identification and the fully automated identification of slides via matrix codes (optional)
- **Efficient pipetting without carryover** using one (IF Sprinter) or four (Sprinter XL) washable pipetting needles
- **Simplification of work processes** in routine laboratories due to user-friendly data communication with an LIS or EUROLabOffice
- **Variable instrument configuration** for different laboratory requirements with up to 96, 160 or 240 samples and up to 30 slides or six microplates (Sprinter XL), or 15 slides or two microplates (IF Sprinter) in one run





Product overview

Device	Description	Order number
IF Sprinter IFT	IFT automation for up to 96 samples, up to 15 slides	YG 0032-0101
IF Sprinter IFT/ELISA	IFT/ELISA automation for up to 96 samples, up to 15 slides/2 microplates	YG 0032-0101-3
Sprinter XL 160 IFT	IFT automation for up to 160 samples, up to 30 slides, 4 washable needles	YG 0033-0101-5
Sprinter XL 160 IFT/ELISA	IFT/ELISA automation for up to 160 samples, up to 30 slides/6 microplates, 4 washable needles, with incubator	YG 0033-0101-3
Sprinter XL 240 IFT	IFT automation for up to 240 samples, up to 30 slides, 4 washable needles	YG 0033-0101-25
Sprinter XL 240 IFT/ELISA	IFT/ELISA automation for up to 240 samples, up to 30 slides/6 microplates, 4 washable needles, with incubator	YG 0033-0101-23

Indirect immunofluorescence

MERGITE! · Sprinter · EUROLabWorkstation IFA · EUROStar · EUROPattern Live Microscope · EUROPattern

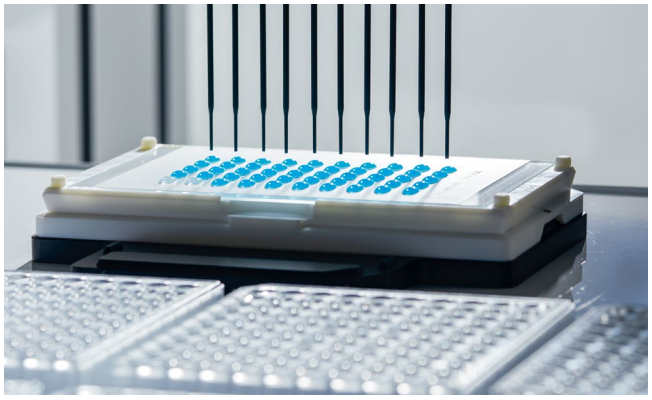
For more information on this subject scan the QR code or enter the Quick Link code q151 at www.euroimmun.com

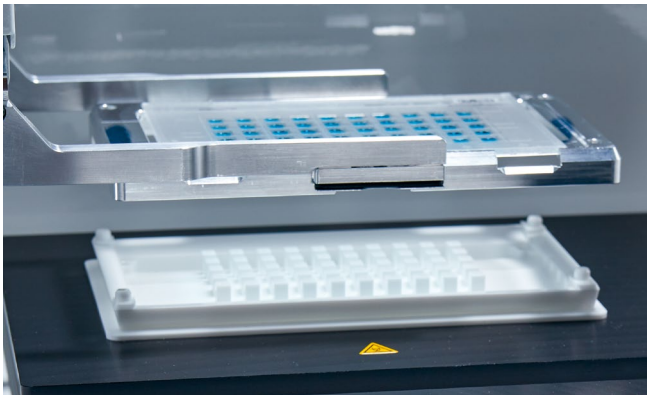
EUROLabWorkstation IFA

The EUROLabWorkstation IFA heralds a new era in IIFT automation. With this new development EUROIMMUN enables fully automated and standardised processing with highest capacity and highest efficiency for laboratories with high sample throughput. Up to 750 substrate fields and more than 700 samples can be analysed at high throughput with just one worklist. The system was developed by EUROIMMUN with a focus on data integrity and minimisation of manual processes. The established TITERPLANE Technique is complemented by the newly developed MERGITE! technology for washing of slides. This ensures brilliant fluorescence signals without background for the automatically mounted slides.

The software can be operated comfortably and intuitively via a touch screen and guides the user through the entire process. Complete traceability is guaranteed at all times, since the matrix codes of the slides and the barcodes of samples, reagents and accessories are automatically detected in each step of the process.

- **Fully automated processing** of EUROIMMUN immunofluorescence tests from primary sample to mounted slide
- **Highest capacity** of up to 750 substrate fields and more than 700 samples in a single worklist
- **Highest efficiency** due to 10 washable pipetting needles and complementary accessories, as well as separation of pipetting and transport steps for flexible time management
- **Flexible workflows** owing to freely selectable loading of the 45 tracks with samples, reagents and dilution plates
- **Brilliant fluorescence signals** with the unique MERGITE! washing technology – each substrate field is washed without the risk of cross contamination using directed liquid flow in a standardised and gentle procedure





Product overview

Device	Description	Order number
EUROLabWorkstation IFA	Fully automated IIFT processing from primary sample to mounted slide for up to 750 substrate fields and more than 700 samples	YG 0852-0101

Indirect immunofluorescence

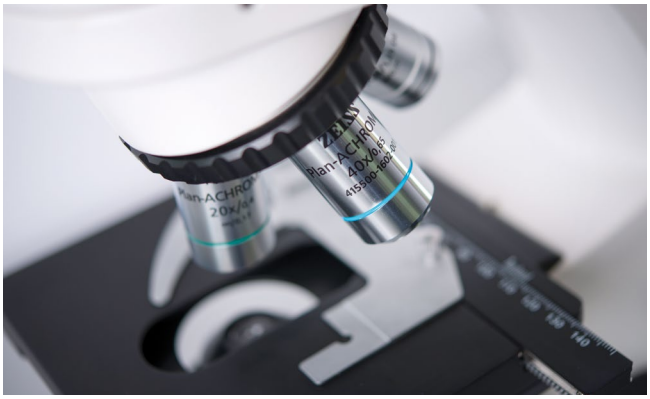
MERGITE! · Sprinter · EUROLabWorkstation IFA · EUROStar · EUROPattern Live Microscope · EUROPattern

For more information on this subject scan the QR code or enter the Quick Link code q025 at www.euroimmun.com

EUROStar III Plus

The LED fluorescence microscope EUROStar III Plus has been precisely tailored to the requirements of indirect immunofluorescence – superfluous, and in some cases expensive components have been intentionally dispensed with. A camera can be attached directly to the integrated photo tube for capturing digital images. Switching between the ocular and the camera is no longer necessary owing to the convenient 50/50 beam splitter. EUROIMMUN also offers the highly functional EUROPicture software for displaying and handling of the digital images. In addition, the optional immunofluorescence positioning system (IF-PS) excludes positioning errors with manual entry of microscopy results. The EUROStar III Plus includes a halogen lamp as standard equipment for normal transmitted light microscopy in bright and dark field and can be upgraded for phase contrast work.

- **Constant fluorescence excitation** due to regulated LED for reliable and reproducible results
- **Long life span** of over 50,000 hours, low current consumption and full light intensity immediately after being switched on
- **Environmentally friendly** without mercury
- **cLED available as separate module** for equipping various other microscopes
- **Screen diagnostics and digital image acquisition** using optional camera with EUROPicture software
- **50/50 beam splitter** for microscopy without switching between the ocular and the optional camera



Product overview

Device	Description	Order number
EUROStar III Plus	Fluorescence LED microscope with constant, controlled light intensity, convenient 50/50 beam splitter, transmitted light microscopy, optional camera and image recording software EUROPicture, optional dark field and phase contrast	YG 0306-0101-3
IF-PS for EUROStar III Plus	Immunofluorescence positioning system for EUROStar III Plus, as a module of EUROLabOffice for the exact, automated allocation of an entered result to a patient	YG 0341-0101-001
EUROIMMUN cLED	Fluorescence LED light source with constant, controlled light intensity, suitable for most Zeiss microscopes with an HBO fixture	YG 0331-0101

Indirect immunofluorescence

For more information on this subject scan the QR code or enter the Quick Link code q159 at www.euroimmun.com

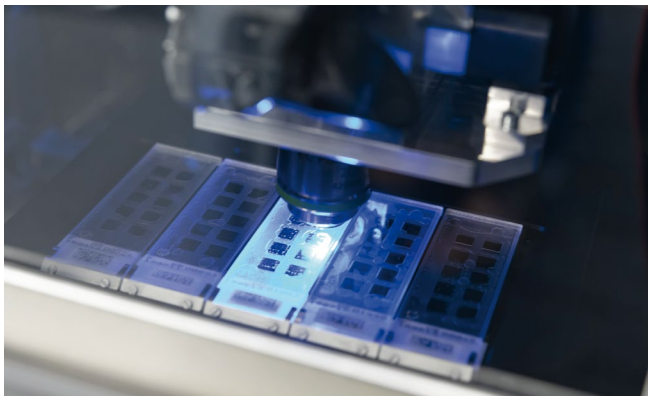
EUROPattern Live Microscope

The EUROPattern Live Microscope is a computer-aided immunofluorescence system which enables highest speed and convenient result reporting in the diagnostic laboratory. The connection to EUROLabOffice 4.0 supports paper-free management and standardised evaluation of immunofluorescence images directly at the computer screen. The intuitive touchscreen user interface allows the user to directly zoom in on the image or to change the position during live microscopy. Moreover, it is possible for several users to view the images simultaneously at the screen – no discussion bridge is required.

Up to 5 slides are loaded into the microscope at once. Using the 20x objective, a high-resolution camera and high-quality optic components, a large number of substrates can be automatically viewed at the microscope, e.g. tissues, HEp-2 cells, Crithidia, granulocytes and antigen-expressing cells. Focusing is performed fully automatically by a new, patent-pending laser focusing technology. A self-regulating long-life LED as excitation source and the automated microscope calibration based on an integrated fluorescence standard ensure consistent immunofluorescence signal intensity.

Owing to its compact design and the opaque housing, the EUROPattern Live Microscope can be used in any room and independently of the light conditions.

- **Live microscopy and a modern on-screen reporting system** – the darkroom is now obsolete
- **Reliability and traceability** owing to automatic identification of slides via matrix codes
- **Multi-touch navigation and zoom** at the computer screen, for convenient microscopy
- **Intuitive and error-free entry** of results directly in the software
- **Team microscopy** without the need for a discussion bridge
- **Ultra-fast focusing** due to a patent-pending laser technology



Product overview

Device / software	Description	Order number
EUROPattern Live Microscope*	Fast, automated live microscopy with LIS connection and convenient result output	YG 0371-0101

*) Under development. Please contact EUROIMMUN for further information.

Indirect immunofluorescence

MERGITE! · Sprinter · EUROLabWorkstation IFA · EUROStar · EUROPattern Live Microscope · EUROPattern

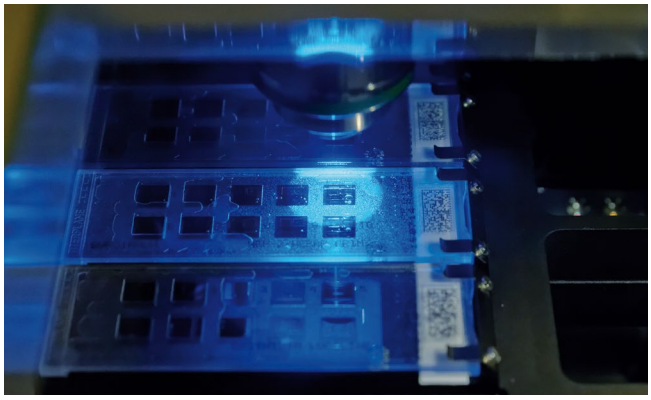
For more information on this subject scan the QR code or enter the Quick Link code q023 at www.euroimmun.com

EUROPattern

The EUROPattern Suite automates immunofluorescence microscopy (slide transport, image recording and archiving and interpretation of the immunofluorescence images), providing support and improvement in diagnostic result reporting. As a module of the laboratory management software EUROLabOffice, EUROPattern can be flexibly integrated into any laboratory environment. The high speed of the system and the minimisation of manual handling enable EUROPattern to be employed for standardised IIFT diagnostics even at the highest of throughput requirements.

The EUROPattern Suite consists of a fully automated microscope with a slide magazine (500 substrate fields per loading) together with sophisticated pattern recognition software, which not only provides classification in terms of "positive" and "negative" for many substrates, but also reliably recognises the different ANA and ANCA patterns.

- **Automated microscopy and a modern reporting system at the screen** for a multitude of EUROIMMUN IIFT products – the darkroom is now obsolete
- **Pattern recognition and titer determination** for ANA and ANCA (including mixed patterns), Crithidia and recombinant cells
- **Long walk-away time** due to high loading capacity and automated processing of up to 500 positions in one run
- **High-throughput immunofluorescence microscopy** – over 250 fluorescence images can be recorded and automatically evaluated in just one hour
- **Reliability and traceability** due to automatic identification of slides via matrix codes



Product overview

Device / software	Description	Order number
EUROPattern	Complete system for computer-aided immuno-fluorescence microscopy (CAIFM); fast automated microscopy, image acquisition and pattern recognition incl. mixed patterns and corresponding titers; data management and communication with LIS and devices via EUROLabOffice	YG 0075-0101-1

Microtiter ELISA

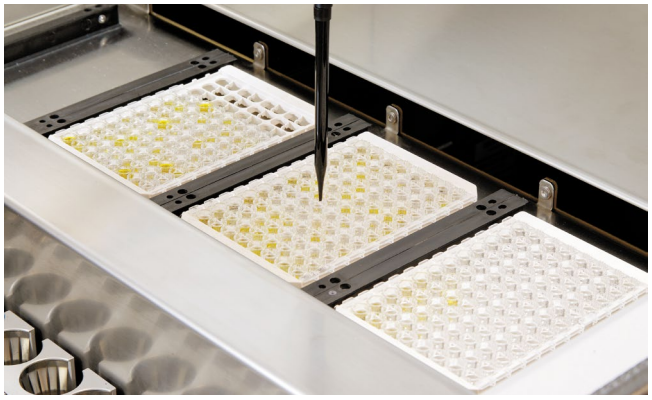
EUROIMMUN Analyzer · EUROLabWorkstation ELISA

For more information on this subject scan the QR code or enter the Quick Link code q017 at www.euroimmun.com

EUROIMMUN Analyzer

The EUROIMMUN Analyzer I and EUROIMMUN Analyzer I-2P are systems for fully automated ELISA processing and ensure an optimal routine operation. The combination of EUROIMMUN ELISAs and EUROIMMUN Analyzer enables a quick and simple, but also a secure start of the worklist, owing to the automatic recognition and allocation of reagents. A further quality feature is the optionally available climate control unit, which ensures constant incubation conditions — regardless of fluctuating or excessively high laboratory temperatures. The EUROIMMUN Analyzer I-2P is designed for small to medium sample throughput and the EUROIMMUN Analyzer I for medium to high sample throughput.

- **Fully automated ELISA processing** for various sample volumes with minimal manual handling
- **Open system** with more than 800 validated EUROIMMUN parameters for autoimmune, infection and allergy diagnostics
- **High reliability and traceability** due to automatic identification of barcodes of patient samples and ready-to-use reagents
- **Fast processing** of up to 70 tests per hour and up to 7 plates and 180 samples per run on the EUROIMMUN Analyzer I; and up to 50 tests per hour and up to 3 plates and 144 samples per run on the EUROIMMUN Analyzer I-2P
- **Convenient operation** of the software including scanning of QC certificates using a 2D-hand barcode scanner



Product overview

Device	Description	Order number
EUROIMMUN Analyzer I-2P	Fully automated ELISA processing for up to 3 microplates	YG 0015-0101
EUROIMMUN Analyzer I	Fully automated ELISA processing for up to 7 microplates	YG 0014-0101

Microtiter ELISA

EUROIMMUN Analyzer · EUROLabWorkstation ELISA

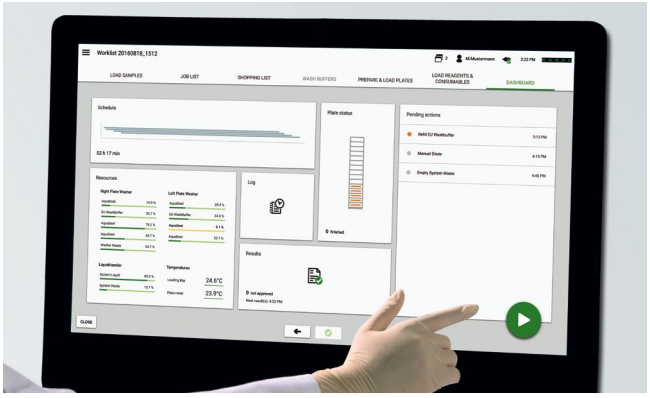
For more information on this subject scan the QR code or enter the Quick Link code q141 at www.euroimmun.com

EUROLabWorkstation ELISA

The EUROLabWorkstation ELISA is a fully automated complete solution for processing ELISA kits in laboratories with high sample throughput. The system was developed by EUROIMMUN with a focus on efficiency and flexibility, in order to accommodate the ever increasing sample numbers and changing dynamics in the routine laboratory.

Ten washable needles, complementary accessories and a separate robotic arm for handling the microplates enable unparalleled sample throughput. State-of-the-art, intuitive software guides the user graphically through all work steps.

- **Fully automated processing of ELISA** from primary sample to result
- **Highest capacity** of up to 15 microplates and up to 700 samples in a single worklist
- **Highest throughput** of up to 200 tests per hour due to fast pipetting of samples and reagents using 10 pipetting channels and efficient processing of microplates
- **Flexible open system** for ELISA tests from different manufacturers
- **Minimal hands-on time and high integrity of results** due to use of bar/matrix codes to identify samples, reagents and accessories



Product overview

Device	Description	Order number
EUROLabWorkstation ELISA	Fully automated ELISA processing for up to 700 samples and up to 15 microplates	YG 0851-0101

Chemiluminescence

RA Analyzer 10

For more information on this subject scan the QR code or enter the Quick Link code q152 at www.euroimmun.com

RA Analyzer 10

The EUROIMMUN random access instrument RA Analyzer 10 offers a compact automation solution for autoimmune and infection parameters as well as antigen detection on the basis of chemiluminescence assays (ChLIA).

The test- and lot-specific information, including stored standard curves, are imported into the database by means of an RFID code on the reagent cartridge. This enables error-free and convenient loading as well as efficient and secure evaluation of tests. The system status can be viewed at any time in the intuitive, user-friendly software.

The continuous loading of samples – also as part of a testing line – allows every patient sample to be processed with miminal effort and short reaction times as a single determination. In addition, the preferred processing of emergency (STAT) samples gives laboratories with different requirements and sample volumes unparalleled flexibility in their laboratory routine.

- **Random access instrument** for batch, continuous and STAT loading
- **Miminal calibration requirement** owing to stored master curves
- **Connection to a testing line possible**
- **Autoimmune and infection parameters and antigen detection** on one instrument
- **Short reaction times with EUROIMMUN tests** for fast and reliable results in just 25 minutes
- **High throughput** of up to 85 samples per hour
- **Convenient and reliable operation** due to barcode recognition of samples and RFID codes on the reagent cartridges

Product overview

Device	Description	Order number
RA Analyzer 10	Random access instrument for autoimmune and infection parameters as well as antigen detection on the basis of chemiluminescence assays (ChLIA), connection to a sample line possible.	YG 0710-0101

Immunoblots

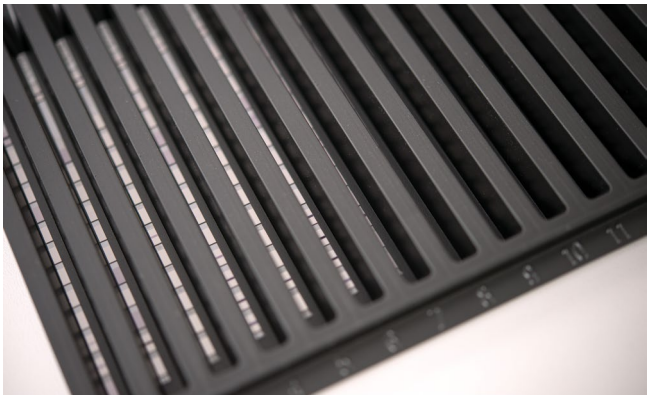
EUROBlotMaster · EUROLineScan · EUROBlotOne

For more information on this subject scan the QR code or enter the Quick Link code q015 at www.euroimmun.com

EUROBlotMaster

The EUROBlotMaster and the EUROBlotMaster 44 are compact tabletop devices for processing EUROIMMUN blot strips (EUROLINE, EUROLINE-WB, Westernblot). Following the software-guided loading of reagents, blot strips and samples, the devices perform all incubation and wash steps of the work protocol, as well as the dispensing of buffers, conjugates and substrate and stop solutions. Different conjugates and tests for autoimmune, infection and allergy diagnostics can be combined in one run. EUROBlotMaster devices have an integrated display with a membrane keyboard and do not require an additional PC. They are convenient and simple to operate using six keys and require minimal daily maintenance of five minutes at most.

- **Flexible automation for all EUROIMMUN blot strips** (EUROLINE, EUROLINE-WB, Westernblot)
- **Standardised processing** for better precision and reproducibility
- **Combination** of autoimmune, infection and allergy diagnostics on one device
- **Two models available:** up to 30 or up to 44 strips per run
- **Easy operation** using menu navigation on the integrated display
- **Combination** of different conjugates/tests in one run
- **Compact tabletop device** with low space requirement



Product overview

Device	Description	Order number
EUROBlotMaster	Blot processor for up to 30 EUROIMMUN blot strips	YG 0151-0101
EUROBlotMaster 44	Blot processor for up to 44 EUROIMMUN blot strips	YG 0151-0101-1

Immunoblots

EUROBlotMaster · EUROLineScan · EUROBlotOne

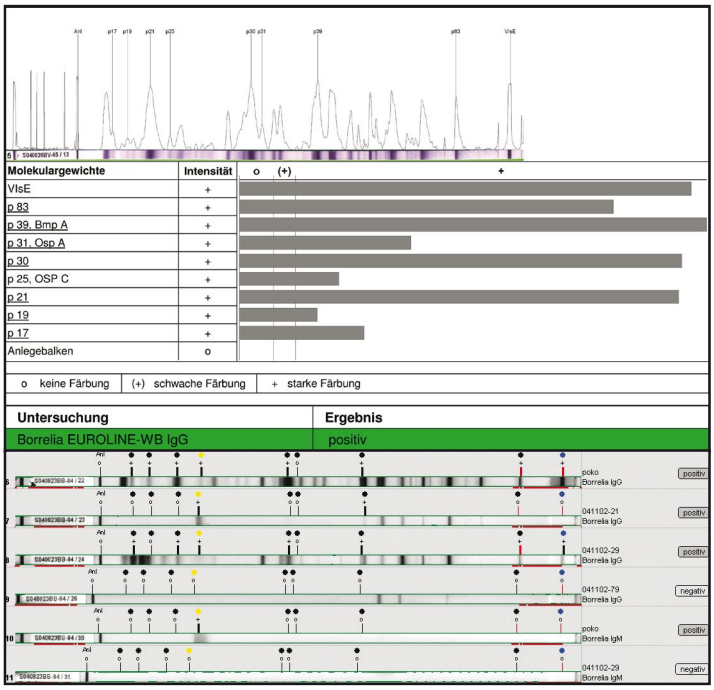
For more information on this subject scan the QR code or enter the Quick Link code q022 at www.euroimmun.com

EUROLineScan

The EUROLineScan software performs fully automated, quantitative evaluation of EUROIMMUN blot strips, and administration and electronic archiving of the individual data. Moreover, EUROLineScan simplifies the incubation procedure by producing clearly laid out work protocols – also when connected to a laboratory information system (LIS) or EUROLabOffice.

The incubated strips or slides are scanned onto a work protocol using a flatbed scanner (EUROBlotScanner), or by means of a camera system (EUROBLineCamera) while still in the incubation tray. EUROLineScan automatically recognises the position of the strips, identifies the bands and measures their intensity. The user can view the results and images of the strips in an overview and in a detailed individual view in order to verify the suggested results. The results are then saved automatically together with the image data. In this way, it is no longer necessary to archive the incubated (and potentially infectious) strips.

- **Automated evaluation system** for all EUROIMMUN blot strips (EUROLINE, EUROLINE-WB, Westernblot) for autoimmune, infection and allergy diagnostics – also Immunoblot-PreQ
- **Electronic archiving** of all images and data – it is no longer necessary to store the incubated blot strips
- **Secure and convenient data communication** via connection to an LIS or EUROLabOffice
- **Individual configuration options** for selection windows and print layouts
- **Data security** due to personalised user management
- **Additional quality control** through EUROLINE validation strips



Product overview

Device / software	Description	Order number
EUROLineScan	Fully automated identification, quantification, evaluation and archiving of incubated blot strips, support for protocol generation	YG 0006-0101
EUROBlotScanner	Fast digitisation using flatbed scanner	YG 0102-0101
EUROLineCamera*	Fast drying of blot strips and digitisation directly in the incubation tray	YG 0104-0101

*) Under development. Please contact EUROIMMUN for further information.

Immunoblots

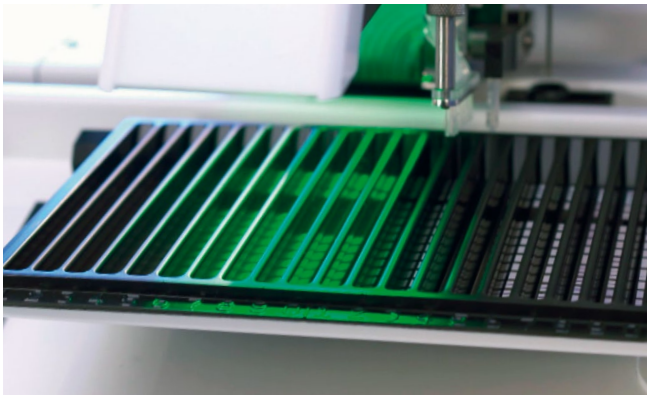
EUROBlotMaster · EUROLineScan · EUROBlotOne

For more information on this subject scan the QR code or enter the Quick Link code q016 at www.euroimmun.com

EUROBlotOne

The EUROBlotOne is a compact tabletop device for complete processing of immunoblots. Following the fast and convenient software-guided loading, the system performs the identification and dilution of samples as well as all incubation and wash steps. Eight reagent channels allow the combination of tests from the areas of autoimmune and infection diagnostics in one run. The incubated strips are then automatically dried, photographed and evaluated using the EUROLineScan software. The test requests or results can be communicated bidirectionally with an LIS or EUROLabOffice.

- **Fully automated system** for the processing of up to 44 immunoblots in one run – from sample identification to the final result
- **Integrated drying unit** for fast evaluation of strips and high reproducibility of results
- **Highest security** through automatic barcode identification of samples
- **Flexible combination** of autoimmune and infection parameters in one run and autoimmune, infection and allergy diagnostics on one device
- **Intuitive software** for secure and convenient operation
- **Reliable automated evaluation** of blot strips with EUROLineScan software



Product overview

Device	Description	Order number
EUROBlotOne	Fully automated blot processing, up to 44 samples/ strips for autoimmune, infection and allergy parameters	YG 0153-0101

EUROArray

EUROArrayScanner

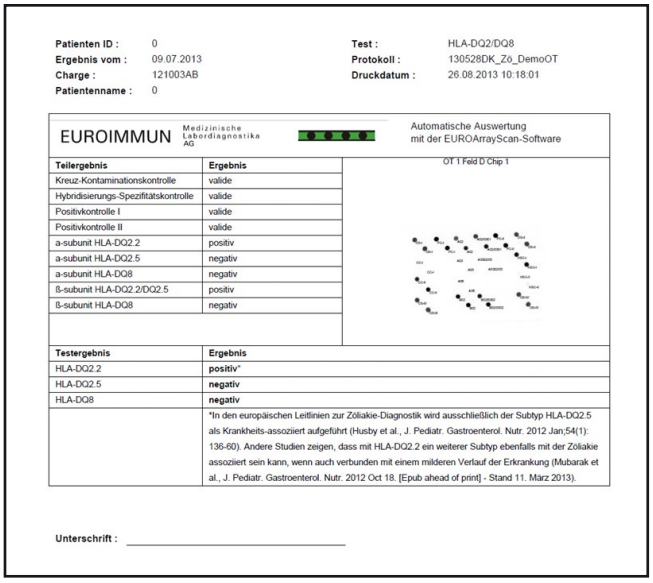
For more information on this subject scan the QR code or enter the Quick Link code q014 at www.euroimmun.com

EUROArrayScanner

EUROArrays after hybridisation are read in the EUROArrayScanner. The EUROArrayScan software automatically recognises the position of the arrays and quantifies the spot signals for each DNA probe. In just a few seconds, the software calculates the test results from the signal intensity for all samples and documents the findings. The extensive, integrated controls are automatically taken into account in the process. Manual evaluation and interpretation of the signals is not necessary. The EUROArrayScan software produces a clearly laid out work protocol for every run, which helps to make processing of the samples simple and secure.

With the report output, the user has the possibility to obtain an overview of the results for all samples and/or a detailed individual report with all partial results together with the associated array image in order to verify the suggested findings. Furthermore, the user can add individual comments. The results are automatically saved together with the image data, therefore archiving of the incubated microarrays can be dispensed with. It is possible to interface the EUROArrayScan software with EUROLabOffice or an existing LIS.

- **Analysis and evaluation system** for molecular diagnostics
- **Fully automatic evaluation, result output and data archiving**
- **Rapid evaluation** using a fluorescence scanner – one slide in less than 20 seconds
- **Result output** in the form of an overview or a detailed individual result
- Possibility to **add comments to the result**
- **LIS connection** and **networkability** for optimal data communication and integration



Patienten ID : 0
Ergebnis vom : 09.07.2013
Charge : 121003AB
Patientenname : 0

Test : HLA-DQ2/DQ8
Protokoll : 130528DK_Zö_DemoOT
Druckdatum : 26.08.2013 10:18:01

EUROIMMUN Medizinische Labordiagnostika AG

Automatische Auswertung
mit der EUROArrayScan-Software

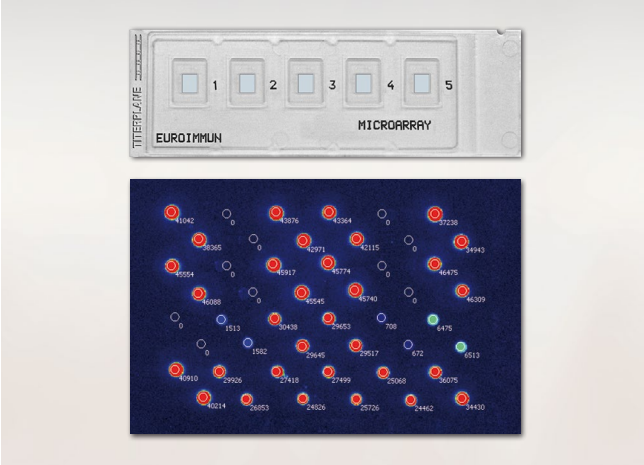
Teilergebnis	Ergebnis
Kreuz-Kontaminationskontrolle	valide
Hybridisierungs-Spezifitätskontrolle	valide
Positivkontrolle I	valide
Positivkontrolle II	valide
a-subunit HLA-DQ2.2	positiv
a-subunit HLA-DQ2.5	negativ
a-subunit HLA-DQ8	negativ
ß-subunit HLA-DQ2.2/DQ2.5	positiv
ß-subunit HLA-DQ8	negativ

OT 1 Feld D Chip 1

Testergebnis	Ergebnis
HLA-DQ2.2	**positiv***
HLA-DQ2.5	**negativ**
HLA-DQ8	**negativ**

*In den europäischen Leitlinien zur Zöliakie-Diagnostik wird ausschließlich der Subtyp HLA-DQ2.5 als Krankheits-assoziiert aufgeführt (Husby et al., J. Pediatr. Gastroenterol. Nutr. 2012 Jan;54(1): 136-60). Andere Studien zeigen, dass mit HLA-DQ2.2 ein weiterer Subtyp ebenfalls mit der Zöliakie assoziiert sein kann, wenn auch verbunden mit einem milderen Verlauf der Erkrankung (Mubarak et al., J. Pediatr. Gastroenterol. Nutr. 2012 Oct 18. [Epub ahead of print] - Stand 11. März 2013).

Unterschrift : _____



Product overview

Device / software	Description	Order number
EUROArrayScanner	EUROArrayScan software and Microarray Scanner for fully automated recording, evaluation and interpretation of results for incubated patient DNA samples using EUROArray technology	YG 0602-0101

EURORealTime

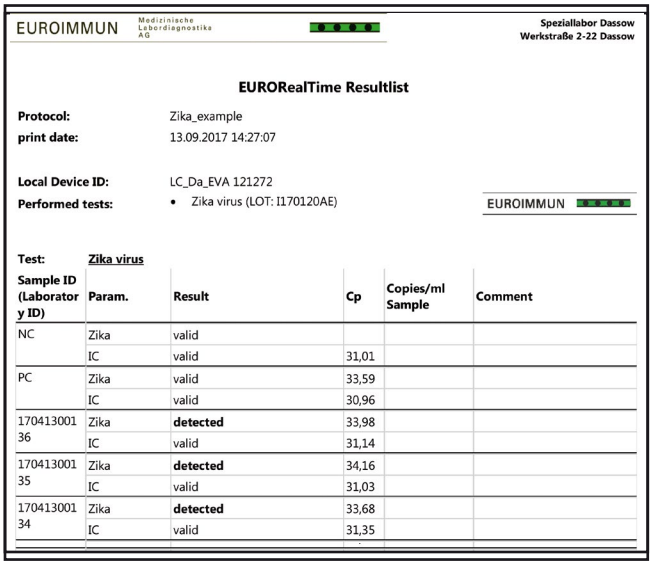
EURORealTime-Analysis

For more information on this subject scan the QR code or enter the Quick Link code q153 at www.euroimmun.com

EURORealTime Analysis

The EURORealTime Analysis software provides simplified processing and fully automated evaluation of EURORealTime test systems. EURORealTime Analysis enables the entry of samples and their allocation to the respective tests. In order to support the subsequent pipetting, the software automatically calculates pipetting schemes and MasterMix preparations based on the input data. Moreover, export and import modules allow for automated and standardised evaluation of raw data for selected PCR cyclers and provide corresponding result suggestions. All internal and external controls are automatically taken into account. Manual definition of cut-offs for the evaluation of results and subjective interpretation of results are not required. At the end of a run, there is the possibility of printing an overview of all test results, optionally also including the respective amplification curves. Furthermore, the EURORealTime Analysis software can be connected to different LIS, so that requests and result data can also be exchanged directly.

- **Software for automated evaluation and support in the processing** of real-time PCR analyses
- **Standardised and automated raw data analysis** for fast and objective result evaluation
- **Fully automated report production and documentation** including all internal and external controls
- **Convenient guidance** through the entire workflow
- **Automated layout creation for the PCR plates,** including all required controls
- Economical **reusability of standard curves** for quantification possible
- **Result output** in a clearly arranged list of individual results, optionally including amplification curves
- **Supplement to existing real-time PCR platforms, fully compatible with** different **LIS**



EUROIMMUN Medizinische Labordiagnostika AG

Speziallabor Dassow
Werkstraße 2-22 Dassow

EURORealTime Resultlist

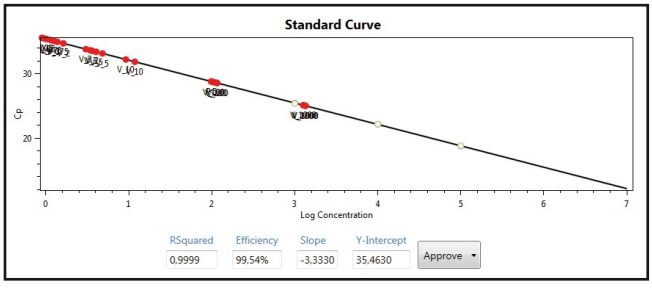
Protocol: Zika_example
print date: 13.09.2017 14:27:07

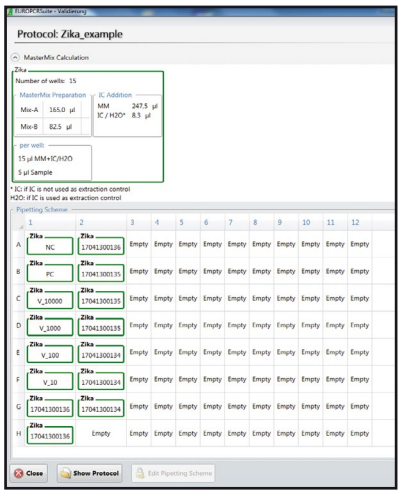
Local Device ID: LC_Da_EVA 121272
Performed tests: • Zika virus (LOT: I170120AE)

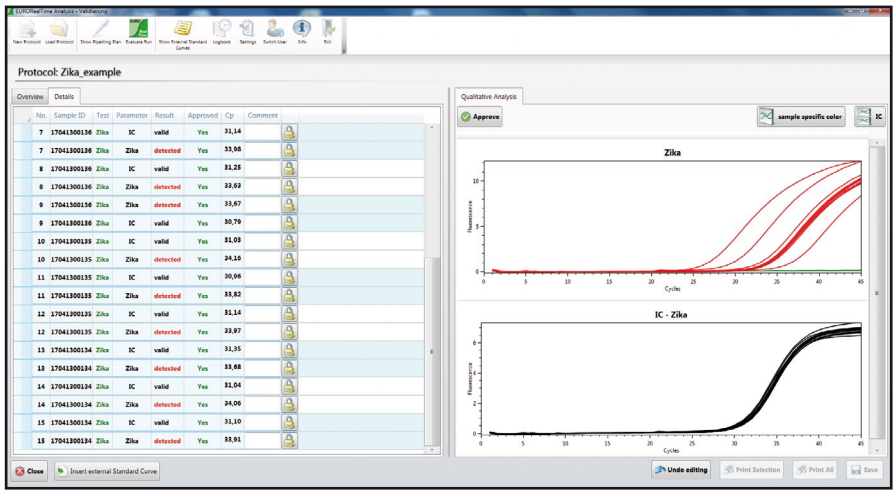
EUROIMMUN

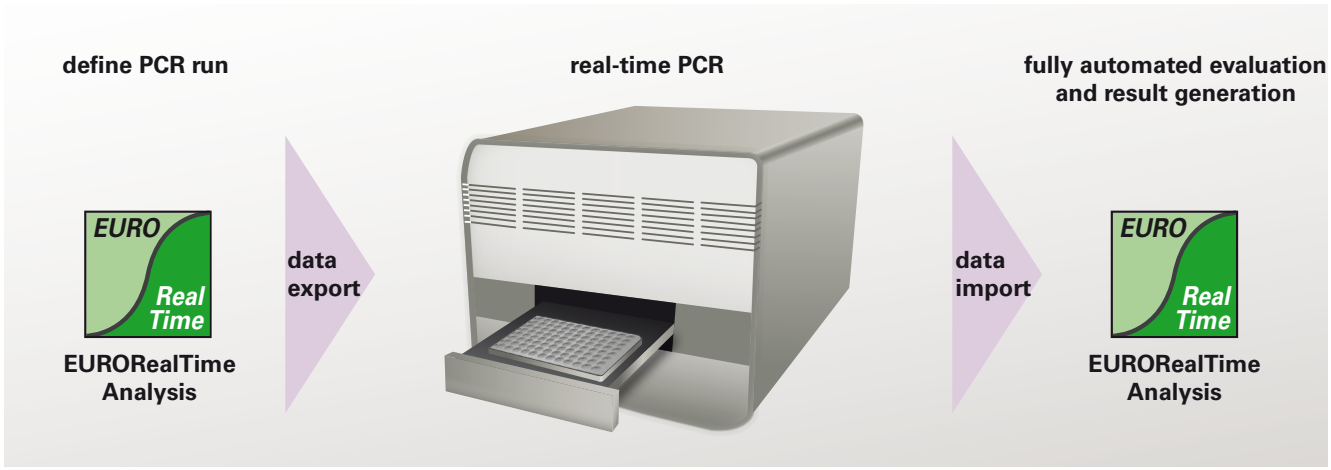
Test: Zika virus

Sample ID (Laboratory ID)	Param.	Result	Cp	Copies/ml Sample	Comment
NC	Zika	valid			
	IC	valid	31,01		
PC	Zika	valid	33,59		
	IC	valid	30,96		
170413001 36	Zika	**detected**	33,98		
	IC	valid	31,14		
170413001 35	Zika	**detected**	34,16		
	IC	valid	31,03		
170413001 34	Zika	**detected**	33,68		
	IC	valid	31,35		









Product overview

Device / software	Description	Order number
EURORealTime Analysis	Fully automated analysis of raw data, evaluation, result interpretation and archiving of real-time PCR analyses with test systems from the EURORealTime product line.	YG 0661-0101

Liquid handling

EUROLabLiquidHandler

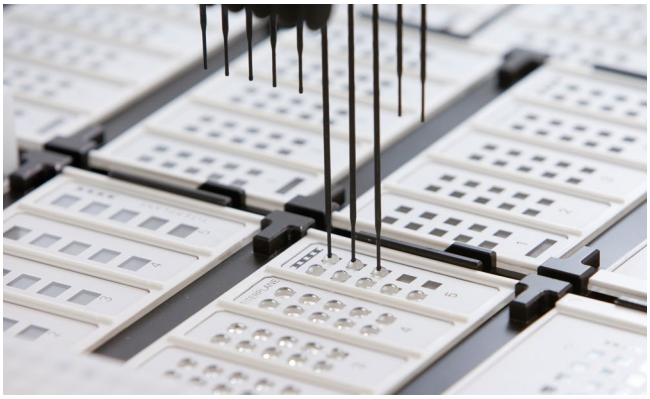
For more information on this subject scan the QR code or enter the Quick Link code q020 at www.euroimmun.com

EUROLabLiquidHandler

The EUROLabLiquidHandler provides flexible operation for many varied tasks in the laboratory, e.g. for creating dilutions from primary sample tubes in accordance with freely configurable protocols or for transferring liquids into secondary vessels. It supports standardised IIFT, ELISA and immunoblot protocols.

The multi-needle system enables all required pipetting steps to be carried out quickly and in parallel, and features intuitive software. This guides the user comfortably through the steps of the loading process, whereby the necessary data entry is carried out via a modern touch-screen display supported by graphics. All EUROIMMUN items and primary tubes used on the system are automatically identified and located directly by the instrument during loading, which makes manual data entry superfluous and minimises hands-on time. The EUROLabLiquidHandler can communicate bidirectionally with an LIS or EUROLabOffice.

- **Versatile usage** e.g. for ELISA, IIFT and blot, with sample, reagent and labware racks, as well as combined racks for optimal use of the instrument capacity
- **Flexible working area** without fixed components
- **Efficient multi-needle system and optimal travel paths** for fast processing
- **Security** owing to continuous recognition of samples, reagents and accessories via matrix- and barcodes
- **Convenient operation** of the intuitive software with visual display of all processes



Product overview

Device	Description	Order number
EUROLabLiquidHandler 30-10	30 tracks, 10 washable needles, for up to 300 samples	YG 0830-0101-10
EUROLabLiquidHandler 45-10	45 tracks, 10 washable needles, for up to 500 samples	YG 0845-0101-10

Laboratory management

EUROLabOffice · EUROLab CSF software

For more information on this subject scan the QR code or enter the Quick Link code q021 at www.euroimmun.com

EUROLabOffice

The laboratory management system EUROLabOffice simplifies and speeds up the daily routine in the diagnostic laboratory and increases security through organisation of the entire laboratory procedure and traceable documentation of all data and processes. EUROLabOffice offers many advantages for both the smaller laboratory with mainly manual workstations as well as for high-throughput laboratories with many connected automated systems and workstations.

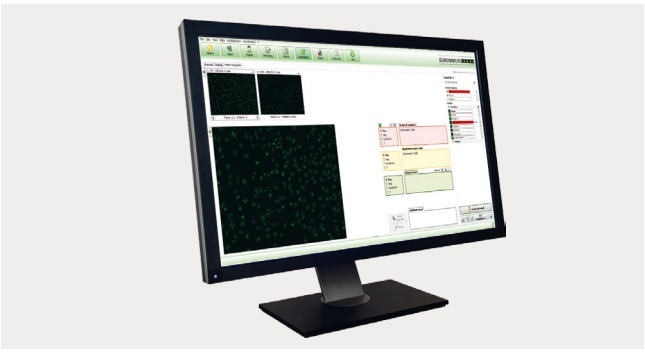
- **Efficient consolidation in serology** through support of all EUROIMMUN products for autoimmune, infection, allergy and molecular genetic diagnostics and antigen detection

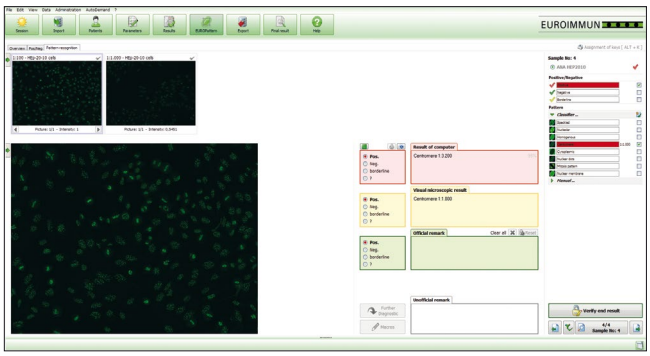
- **Central interface** between all EUROIMMUN instruments and the LIS for maximal automation and minimal manual working steps

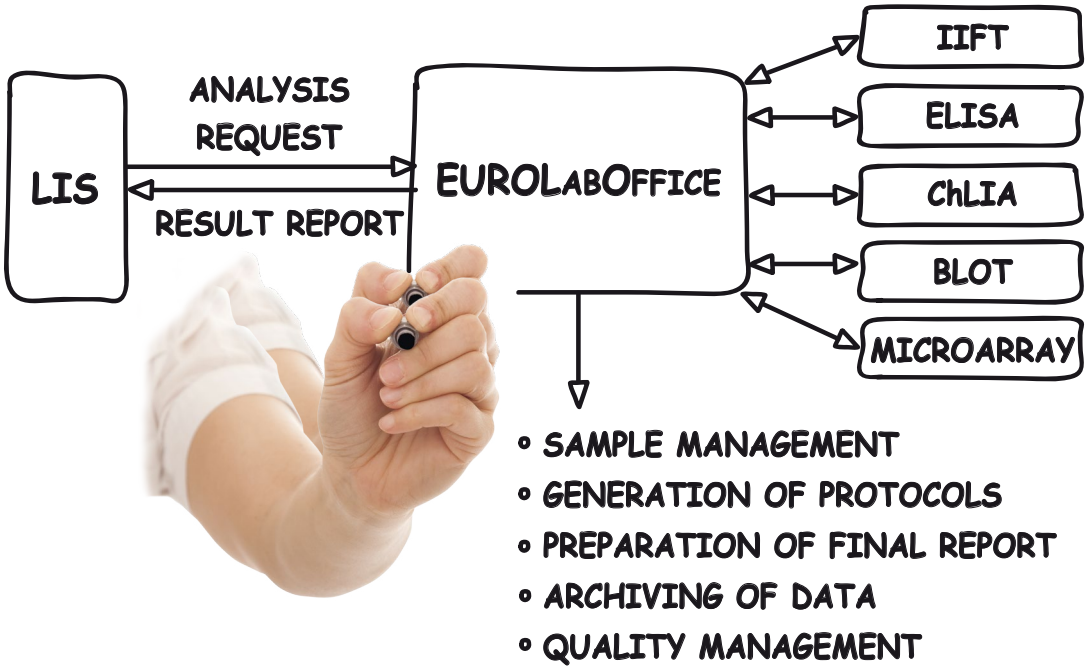
- **Increase in the efficiency and reproducibility of all working steps:** Completely paperless work procedures in accordance with automated protocols – from easy management of test requests, (cost-) optimised performance of analyses, IIFT result entry in the PC, archiving of IIFT and blot images, right up to the end result

- **Security and comprehensive data processing** via automated and complete data communication between the LIS and all workstations

- **Flexible and open system** for adaptation to existing laboratory processes with various expansion modules, e.g. for optimised sample sorting, inventory management, reflex testing or quality control, or for a consolidated, serological validation including result dispatch (also with web application for laboratories and doctors submitting samples)







Product overview

Software	Description	Order number
EUROLabOffice	Customisable laboratory management software for the optimisation of workflows in the diagnostic laboratory	YG 0250-0101-1
EUROLabOffice 4.0*	Laboratory management software of the latest generation for optimisation of working procedures in the diagnostic laboratory	YG 0250-0101-7
EUROLabSign	Extension module for convenient generation of partial and final results	YG 0250-0101-53

*) Under development. Please contact EUROIMMUN for further information.

Laboratory management

EUROLabOffice · EUROLab CSF software

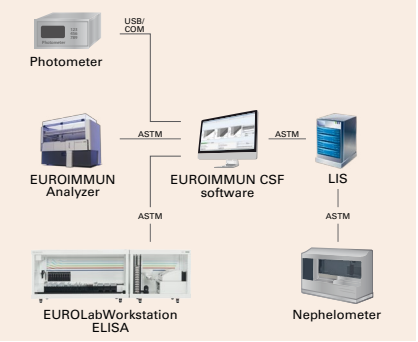
For more information on this subject scan the QR code or enter the Quick Link code q128 at www.euroimmun.com

EUROIMMUN CSF software (a component of EUROLabOffice)

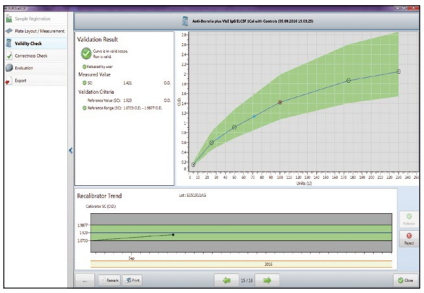
EUROIMMUN CSF Software is designed for the automated calculation of CSF/serum quotients ($CSQ_{alb.}$, CSQ_{total} IgA/G/M, $CSQ_{path.-spec.}$, $CSQ_{lim.}$ and $CSQ_{rel.}$ or antibody index AI). The $CSQ_{rel.}$ allows a statement to be made on intrathecal pathogen-specific antibody synthesis.

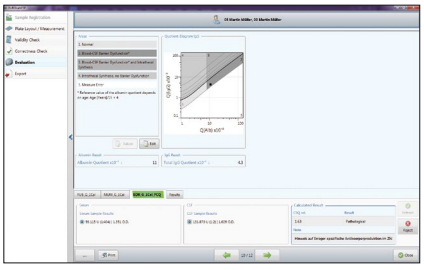
The albumin and antibody concentrations measured by means of e.g. a nephelometer and EUROIMMUN Analyzer or EUROLabWorkstation ELISA can be transferred online into the EUROIMMUN CSF Software so that time-consuming and error-prone manual data transfer is no longer required. Manual input of the values or quotients into the software is also possible. For manual transfer a photometer can be connected.

Optionally, a storable standard curve can be used. In this case only a recalibrator needs to be included in the test run rather than 4 to 6 calibrators. This saves reaction wells on the ELISA plate. The recalibration, validity check and calculation of the antibody concentration are fully automated in the EUROIMMUN CSF Software. For internal quality control, the values of the recalibrator or the serum/CSF controls from different test runs for one lot are clearly presented and administered (Levey-Jennings diagram).



In the detailed patient view, all findings and a suggested end result are shown. The CSF/serum quotients $CSQ_{alb.}$ and CSQ_{total} IgA/G/M are additionally displayed graphically in quotient diagrams according to Reiber and Lange and can be interpreted using the legend. A variety of configurations allows for individual adjustment of the used units and report texts.



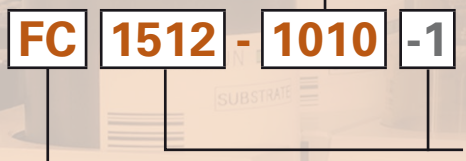


- **Automatic calculation of CSF/serum quotients** from pathogen-specific antibody, albumin and total IgA/G/M concentrations
- **No time-consuming manual data transfer** required – bidirectional data communication between EUROIMMUN Analyzer/EUROLabWorkstation ELISA or photometer, LIS and nephelometer
- **Clear graphic display** in quotient diagrams according to Reiber and Lange
- **Use of a storable standard curve** (optional)

Product overview

Software	Description	Order number
EUROIMMUN CSF Software (a component of EUROLab-Office)	Software for automated calculation of CSF/serum quotients ($CSQ_{alb.}$, CSQ_{total} IgA/G/M, $CSQ_{path.-spec.}$, $CSQ_{lim.}$ and $CSQ_{rel.}$ or antibody index AI, respect.)	YG 0259-0101-1

Special test kits and reagents for automation



Format

- 1005: 10 slides with 5 fields each
- 2005: 20 slides with 5 fields each
- 1010: 10 slides with 10 fields each
- 1050: 10 slides with 50 fields each

Product code

Product classification

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the serological investigation. For diagnostics in indirect immunofluorescence, for example, these include slides, FITC-labelled antibodies against human immunoglobulin, positive and negative control sera (not available for some products) as well as embedding medium, cover glasses, sachets of PBS and Tween 20.

Substrates consisting of cell cultures and tissues which do not appear in this catalogue can be made to specification. In addition, BIOCHIP mosaics can be produced according to individual requirements. Apart from the customary package sizes and slide formats, special sizes are available as well. Quotations can be provided upon request.

EUROLINE for the Determination of Autoantibodies (Test Systems with preequipped incubation trays)

Order No.	Antibodies against	Ig Class	Substrate	Format
DL 0160-5001 G	EUROLINE validation	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1111-5001-7 G	Paraneoplastic Neurologic Syndromes - 12 Ag (amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu, recoverin, SOX1, titin, Zic4, GAD65, Tr (DNER) separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1300-5001-4 G	Autoimmune Liver Diseases (AMA M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, Ro-52 separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1530-5001-4 G	Autoimmune Inflammatory Myopathies 16 Ag (Mi-2 alpha, Mi-2 beta, TIF1g, MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52 separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1532-5001 G	Systemic Sclerosis Profile (Nucleoli) (Scl-70, CENP A, CENP B, RP11, RP155, fibrillarin, NOR90, Th/To, PM-Scl100, PM-Scl75, Ku, PDGFR, Ro-52 separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1590-5001-3 G	ANA Profile 3 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2 separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1590-5001-8 G	ANA Profile 1 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, Jo-1, CENP B, dsDNA, nucleosomes, histones, ribosomal P-proteins separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DL 1590-5001-30 G	ANA Profile 3 plus DFS70 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2, DFS70 separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ

EUROLINE for Infectious Serology (Test Systems with preequipped incubation trays)

Order No.	Antibodies against	Ig Class	Substrate	Format
DL 0160-5001 G	EUROLINE validation	IgG	EUROLINE	50 strips Immunoblot-PreQ
DN2131-0510 G	EUROLINE Borrelia-RN-AT (p18, p19, p20, p21, p58, OspC (p25), p39, p83, LBb, LBa, VlsE Bg, VlsE Bb, VlsE Ba separately)	IgG	EUROLINE	50 strips Immunoblot-PreQ
DN2131-0510 M	EUROLINE Borrelia-RN-AT (OspC Bg native, OspC Bb native, OspC Ba native, p39, VlsE Bb separately)	IgM	EUROLINE	50 strips Immunoblot-PreQ
DN2131-0510-2 M	EUROLINE Borrelia-RN-AT-adv (OspC-adv Bsp, OspC-adv Bg, OspC-adv Bb, OspC-adv Ba, p39, VlsE Bb separately)	IgM	EUROLINE	50 strips Immunoblot-PreQ

Further Reagents for EUROIMMUN Chemiluminescence Tests

Order No.	Reagent	Format
LL 0711-0105	RA Analyzer System Liquid	5 l
LL 0712-0110	RA Analyzer Wash Solution	10 l
LL 0713-0201	RA Analyzer Trigger Set	2 x 250 ml
LL 0714-0201	RA Analyzer D-Sorb Solution Set	2 x 1000 ml

Diagnostics for Indirect Immunofluorescence: EUROPattern, Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1020-2005 FC 1020-2010	islet cells antibodies (PM) EUROPattern pancreas islets	IgG	1 BIOCHIP per field: pancreas	 monkey	20 x 05 (test system) 20 x 10 (test system)
FC 1050-1003 FC 1050-1005 FC 1050-1010 FC 1050-2005 FC 1050-2010	Endocrinology Screen (AM) EUROPattern adrenal cortex	IgAGM	1 BIOCHIP per field: adrenal gland	 monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1111-1003-1 FC 1111-1005-1 FC 1111-1010-1 FW1111-1003-1 FW1111-1005-1 FW1111-1010-1	Neurology Mosaic 1 EUROPattern Yo, Hu, Ri, CV2, Ma, amphiphysin medullated nerves non-medullated nerves	IgG	3 BIOCHIPs per field: cerebellum nerves intestinal tissue	 monkey monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1111-1005-8 FC 1111-1010-8	Neurology Mosaic 8 EUROPattern Yo, Hu, Ri, CV2, Ma, amphiphysin medullated nerves non-medullated nerves pancreas islets	IgG	4 BIOCHIPs per field: cerebellum nerves intestinal tissue pancreas	 monkey monkey monkey monkey	10 x 05 (test system) 10 x 10 (test system)
FC 1128-2005-1	NMOSD Screen 1 EUROPattern aquaporin-4 (AQP-4) Myelin-oligodendrocyte glycoprotein (MOG)	IgG PI	3 BIOCHIPs per field: transfected cells transfected cells control transfection	 EU 90 EU 90 EU 90	20 x 05 (test system)
FC 1128-1005-50 FC 1128-1010-50 FC 1128-2005-50 FC 1128-2010-50	aquaporin-4 EUROPattern	IgG PI	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 112d-1005-6 FC 112d-1010-6 FC 112d-2005-6 FC 112d-2010-6	Autoimmune Encephalitis Mosaic 6 EUROPattern glutamate receptor (type NMDA) contactin-associated protein 2 (CASPR2) glutamate receptors (type AMPA1/2) leucine-rich glioma-inactivated protein 1 (LGI1) dipeptidyl aminopeptidase-like protein 6 (DPPX) GABA B receptor	IgG PI	6 BIOCHIPs per field: transfected cells transfected cells transfected cells transfected cells transfected cells transfected cells	 EU 90 EU 90 EU 90 EU 90 EU 90 EU 90	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 112d-1003-51 FC 112d-1005-51 FC 112d-1010-51	glutamate receptor (type NMDA) EUROPattern	IgG PI	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system)
FC 112l-1003-50 FC 112l-1005-50	GABA B receptor EUROPattern	IgG PI	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system)
FC 112m-2005-50	dipeptidyl aminopeptidase-like protein 6 (DPPX) EUROPattern	IgG PI	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	20 x 05 (test system)
FC 1156-2005-50	Myelin-Oligodendrocyte-Glycoprotein (MOG) EUROPattern	IgG PI	transfected cells control transfection	EU 90 EU 90	20 x 05 (test system)
FC 1200-1005 FC 1200-1010 FC 1200-2005 FC 1200-2010	cytoplasm of granulocytes (cANCA, pANCA), nuclei of granulocytes (GS-ANA) EUROPattern	IgG EB	granulocytes, ethanol-fixed	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1201-1005 FC 1201-1010 FC 1201-2005	granulocytes (cANCA, pANCA) EUROPattern	IgG EB	granulocytes, formaldehyde-fixed	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)
FC 1201-1005-2 FC 1201-1010-2 FC 1201-2005-2 FC 1201-2010-2	Granulocyte Mosaic 2 EUROPattern cANCA, pANCA, GS-ANA, EUROPattern cANCA, pANCA, EUROPattern	IgG EB	2 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO)	 human human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: EUROPattern, Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1201-1003-4	Granulocyte Mosaic 4 EUROPattern	IgG EB	3 BIOCHIPs per field:		10 x 03 (test system)
FC 1201-1005-4	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	10 x 05 (test system)
FC 1201-1010-4	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	10 x 10 (test system)
FC 1201-2005-4	cell nuclei (ANA)		HEp-2 cells	human	20 x 05 (test system)
FC 1201-12010-4					120 x 10 (test system)
FW1201-1003-4					10 x 03 (single slides)
FW1201-1005-4					10 x 05 (single slides)
FW1201-1010-4					10 x 10 (single slides)
FW1201-2005-4					20 x 05 (single slides)
FC 1201-1005-13	Granulocyte Mosaic 13 EUROPattern	IgG EB	3 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-13	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	10 x 10 (test system)
FC 1201-2005-13	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-13	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	20 x 10 (test system)
FC 1201-12010-13					120 x 10 (test system)
FW1201-1005-13					10 x 05 (single slides)
FW1201-2010-13					20 x 10 (single slides)
FC 1201-1005-15	Granulocyte Mosaic 15 EUROPattern	IgG EB	2 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-15	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	10 x 10 (test system)
FC 1201-2010-15	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	20 x 10 (test system)
FC 1201-1050-15					10 x 50 (test system)
FW1201-1005-15					10 x 05 (single slides)
FC 1201-1005-22	EUROPLUS Granulocyte Mosaic 22	IgG EB	4 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-22	EUROPattern				10 x 10 (test system)
FC 1201-2005-22	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-22	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	20 x 10 (test system)
	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FC 1201-1005-25	EUROPLUS Granulocyte Mosaic 25	IgG EB	6 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-25	EUROPattern				10 x 10 (test system)
FC 1201-2005-25	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-25	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	20 x 10 (test system)
FW1201-1005-25	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	10 x 05 (single slides)
FW1201-2010-25	glom. basement membrane (GBM), EUROPattern		GBM BIOCHIPs		20 x 10 (single slides)
	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FC 1201-1005-32	EUROPLUS Granulocyte Mosaic 32	IgG EB	5 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-32	EUROPattern				10 x 10 (test system)
FC 1201-2005-32	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-32	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	20 x 10 (test system)
FW1201-1005-32	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	10 x 05 (single slides)
FW1201-1010-32	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		10 x 10 (single slides)
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FC 1254-1005-50	phospholipase A2 receptor (PLA2R)	IgG PI	transfected cells	EU 90	10 x 05 (test system)
FC 1254-1010-50	EUROPattern		control transfection	EU 90	10 x 10 (test system)
FC 1254-2005-50			(2 BIOCHIPs per field)		20 x 05 (test system)
FC 1254-2010-50					20 x 10 (test system)
FC 1300-1005-8	Autoimmune liver diseases Screen 8	IgG PI	6 BIOCHIPs per field:		10 x 05 (test system)
FC 1300-1010-8	EUROPattern		liver	monkey	10 x 10 (test system)
FC 1300-2005-8	liver antigens, cell nuclei (ANA)		VSM47	rat	20 x 05 (test system)
	F-actin		HEp-2 cells	human	
	cell nuclei (ANA), EUROPattern		liver	rat	
	LKM, ANA		kidney	rat	
	mitochondria (AMA), LKM		stomach	rat	
	smooth muscles (ASMA)				
FC 1300-1005-9	Autoimmune liver diseases Screen 9	IgG PI	4 BIOCHIPs per field:		10 x 05 (test system)
FC 1300-1010-9	EUROPattern				10 x 10 (test system)
FC 1300-2005-9	mitochondria (AMA), LKM		kidney	rat	20 x 05 (test system)
FC 1300-2010-9	LKM, ANA		liver	rat	20 x 10 (test system)
	smooth muscles (ASMA)		stomach	rat	
	F-actin		VSM47	rat	

Diagnostics for Indirect Immunofluorescence: EUROPattern, Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1439-1003-1 **FC 1439-1005-1** **FW1439-1003-1** **FW1439-1005-1**	**Anti-VGKC-Ass. Proteins Mosaic 1 EUROPattern** **leucine-rich glioma-inact. prot. 1 (LGI1)** **contactin-associated protein 2 (CASPR2)**	IgG PI	3 BIOCHIPs per field: transfected cells transfected cells control transfection	 EU 90 EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 03 (single slides) 10 x 05 (single slides)
FC 1501-1005 **FC 1501-1010** **FC 1501-2005**	**Dermatology Screen (EM) EUROPattern** **epidermis:** **prickle cell desmosomes** **epidermal basement membrane**	IgG+IgG4	 oesophagus	 monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)
FC 1501-1003-1 **FC 1501-1005-1** **FC 1501-1010-1**	**Dermatology Screen 1 EUROPattern** **epidermis** **epidermis**	IgG+IgG4	2 BIOCHIPs per field: oesophagus tongue	 monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system)
FC 1501-1010-20 **FC 1501-2005-20** **FC 1501-2010-20**	**Dermatology Mosaic 20 EUROPattern** **epidermis** **pemphigoid antigens**	IgG+IgG4	2 BIOCHIPs per field: oesophagus salt-split skin	 monkey monkey	10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1510-1005-1 **FC 1510-1010-1** **FC 1510-2005-1** **FC 1510-2010-1** **FC 1510-12010-1** **FC 1510-2450-1** **FW1510-2010-1** **FW1510-1050-1**	**cell nuclei (ANA) EUROPattern** **cell nuclei (ANA)**	IgG PI	HEp-2 cells liver (2 BIOCHIPs per field)	human monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 120 x 10 (test system) 24 x 50 (test system) 20 x 10 (single slides) 10 x 50 (single slides)
FC 1510-1010-2	**ANA Mosaic 2 EUROPattern** **cell nuclei (ANA), EUROPattern** **mitochondria (AMA)**	IgG PI	2 BIOCHIPs per field: HEp-2 cells kidney	 human rat	10 x 10 (test system)
FC 1512-1005-1 **FC 1512-1010-1** **FC 1512-2005-1** **FC 1512-2010-1** **FC 1512-1050-1** **FC 1512-12010-1** **FC 1512-2450-1** **FW1512-1005-1** **FW1512-1010-1** **FW1512-2010-1** **FW1512-1050-1**	**cell nuclei (ANA) EUROPattern** **cell nuclei (ANA)**	IgG PI	HEp-20-10 cells liver (2 BIOCHIPs per field)	human monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 50 (test system) 120 x 10 (test system) 24 x 50 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 10 (single slides) 10 x 50 (single slides)
FC 1520-1005 **FC 1520-1010** **FC 1520-2005** **FC 1520-2010** **FC 1520-1050** **FC 1520-12010** **FW1520-1005** **FW1520-1010** **FW1520-2005** **FW1520-2010** **FW1520-1050**	**cell nuclei (ANA)** **EUROPattern**	IgG PI	HEp-2 cells	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 50 (test system) 120 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides) 10 x 50 (single slides)
FC 1522-1005 **FC 1522-1010** **FC 1522-2005** **FC 1522-2010** **FC 1522-1050** **FC 1522-12010** **FW1522-1005** **FW1522-2005** **FW1522-2010**	**cell nuclei (ANA)** **EUROPattern**	IgG PI	HEp-20-10 cells	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 50 (test system) 120 x 10 (test system) 10 x 05 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FC 1572-1005 **FC 1572-1010** **FC 1572-2010**	**dsDNA** **EUROPattern**	IgG EB	flagellates	Crithidia luciliae	10 x 05 (test system) 10 x 10 (test system) 20 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: EUROPattern, Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1572-1005-1 **FC 1572-1010-1** **FC 1572-2010-1**	**dsDNA (sensitive) EUROPattern**	IgG EB	flagellates	Crithidia luciliae	10 x 05 (test system) 10 x 10 (test system) 20 x 10 (test system)
FC 1620-1003-1 **FC 1620-1005-1** **FC 1620-1010-1** **FC 1620-2005-1** **FC 1620-2010-1**	**AMA/ASMA IIFT (KR/SR) EUROPattern** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG	2 BIOCHIPs per field: kidney stomach	 rat rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1651-1003 **FC 1651-1005** **FC 1651-1010**	**F-actin EUROPattern**	IgG PI	VSM47	rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system)
FC 1800-1010-1	**Mosaic Basic Profile 1 EUROPattern** **cell nuclei (ANA), EUROPattern** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG PI	3 BIOCHIPs per field: HEp-2 cells kidney stomach	 human rat rat	10 x 10 (test system)
FC 1800-1010-2 **FC 1800-2005-2** **FC 1800-2010-2**	**Mosaic Basic Profile 2 EUROPattern** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	3 BIOCHIPs per field: liver kidney stomach	 rat rat rat	10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1800-1010-3 **FC 1800-2005-3** **FC 1800-2010-3**	**Mosaic Basic Profile 3 EUROPattern** **cell nuclei (ANA), EUROPattern** **cell nuclei (ANA)** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG PI	4 BIOCHIPs per field: HEp-2 cells liver kidney stomach	 human monkey rat rat	10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1802-1003-3 **FC 1802-1005-3** **FC 1802-1010-3** **FC 1802-2005-3** **FC 1802-2010-3**	**Mosaic Basic Profile 3A EUROPattern** **cell nuclei (ANA) EUROPattern** **cell nuclei (ANA)** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG PI	4 BIOCHIPs per field: HEp-20-10 cells liver kidney stomach	 human monkey rat rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FC 1805-1010-13 **FC 1805-2010-13**	**Mosaic Basic Profile 13B EUROPattern** **cell nuclei (ANA), EUROPattern** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG PI	4 BIOCHIPs per field: HEp-2 cells liver kidney stomach	 human rat rat rat	10 x 10 (test system) 20 x 10 (test system)
FC 1812-1003-3 **FC 1812-1005-3** **FC 1812-1010-3** **FC 1812-2005-3** **FC 1812-0010-3** **FW1812-2005-3**	**Mosaic Basic Profile 3C EUROPattern** **cell nuclei (ANA), EUROPattern** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG PI	4 BIOCHIPs per field: HEp-20-10 cells liver kidney stomach	 human rat rat rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 100 x 10 (test system) 20 x 05 (single slides)
FC 1911-1005 A **FC 1911-1010 A** **FC 1911-2005 A** **FC 1911-2010 A** **FC 1911-0010 A** **FC 1911-1005 G** **FC 1911-1010 G** **FC 1911-2010 G** **FW1911-2005 A**	**Coeliac Disease Screen (EM) EUROPattern** **endomysium**	IgA IgGpa IgA	 oesophagus	 monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 100 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 10 (test system) 20 x 05 (single slides)
FC 1914-1005 A **FC 1914-1010 A** **FC 1914-2005 A** **FC 1914-2010 A** **FC 1914-1005 G** **FC 1914-1010 G** **FC 1914-2005 G**	**Coeliac Disease Screen (LM) EUROPattern** **endomysium**	IgA IgGpa	liver	monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)

Diagnostics for Indirect Immunofluorescence: EUROPattern, Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FR 2150-1005-4 P	**Legionella Mosaic 4 EUROPattern** **L. pneumophila mixture 5 (serotype 1-7)** **L. pneumophila mixture 6 (serotype 8-14)** **L. non pneumophila mixture 7**	IgAGM	4 BIOCHIPs per field: bacterial smear bacterial smear bacterial smear verification BIOCHIP	 L. pneumophila L. pneumophila 6 L. non-pneum. sp.	10 x 05 (test system)
FR 2191-1005-3 A	**Anti-Chlamydia MIF EUROPattern**	IgA EB	4 BIOCHIPs per field:		10 x 05 (test system)
FR 2191-1010-3 A	**Chlamydia trachomatis**		elementary bodies	EU 40	10 x 10 (test system)
FR 2191-1005-3 G	**Chlamydia pneumoniae**	IgG EB	and non-infected cells	EU 40	10 x 05 (test system)
FR 2191-1010-3 G	**Chlamydia psittaci**			EU 40	10 x 10 (test system)
FR 2191-1005-3 M		IgM EB			10 x 05 (test system)
FR 2191-1010-3 M					10 x 10 (test system)
FR 2192-1005-80 A	**Chlamydia pneumoniae EUROPattern**	IgA EB	elementary bodies (MIF)	EU 40	10 x 05 (test system)
FR 2192-1005-80 G		IgG EB	non-infected cells	EU 40	10 x 05 (test system)
FR 2192-1005-80 M		IgM EB	(2 BIOCHIPs per field)		10 x 05 (test system)
FR 2193-1005-80 A	**Chlamydia psittaci EUROPattern**	IgA EB	elementary bodies (MIF)	EU 40	10 x 05 (test system)
FR 2193-1005-80 G		IgG EB	non-infected cells	EU 40	10 x 05 (test system)
FR 2193-1010-80 G			(2 BIOCHIPs per field)		10 x 10 (test system)
FR 2193-1005-80 M		IgM EB			10 x 05 (test system)
FR 2193-1010-80 M					10 x 10 (test system)
FR 219b-1005-1 G	**Bartonella henselae EUROPattern**	IgG PI	infected cells	EU 70	10 x 05 (test system)
FR 219b-1010-1 G	**Bartonella quintana EUROPattern**		infected cells (2 BIOCHIPs per field)	EU 70	10 x 10 (test system)
FR 219b-2010-1 M		IgM EB	infected and non-infected cells (4 BIOCHIPs per field)	EU 70 EU 38	20 x 10 (test system)
FR 2201-1005-1 G	**Mycoplasma hominis EUROPattern**	IgG EB	infected cells	EU 38	10 x 05 (test system)
FR 2201-1010-1 G	**Ureaplasma urealyticum EUROPattern**		infected cells	EU 38	10 x 10 (test system)
FR 2201-1005-1 M		IgM EB	non-infected cells	EU 38	10 x 05 (test system)
FR 2201-1010-1 M			(3 BIOCHIPs per field)		10 x 10 (test system)
FR 2202-1003 G	**Mycoplasma pneumoniae EUROPattern**	IgG	bacteria	Mycoplasma pneumoniae	10 x 03 (test system)
FR 2202-1005 G					10 x 05 (test system)
FR 2202-1010 G					10 x 10 (test system)
FR 2202-2005 G					20 x 05 (test system)
FR 2202-1003 M		IgM			10 x 03 (test system)
FR 2202-1005 M					10 x 05 (test system)
FR 2202-1010 M					10 x 10 (test system)
FR 2202-2005 M					20 x 05 (test system)
FR 2536-1005 G	**HHV-6 EUROPattern**	IgG EB	infected cells	EU 30	10 x 05 (test system)
FR 2536-1010 G					10 x 10 (test system)
FR 2536-2005 G					20 x 05 (test system)
FR 2536-2010 G					20 x 10 (test system)
FR 2536-1005 M		IgM EB			10 x 05 (test system)
FR 2536-1010 M					10 x 10 (test system)
FR 2536-2005 M					20 x 05 (test system)
FR 2536-2010 M					20 x 10 (test system)
FS 2536-2005					20 x 05 (single slides)
FR 2665-1005 G	**Yellow fever virus (YFV) EUROPattern**	IgG PI	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FR 2665-1005 M		IgM PI			10 x 05 (test system)
FR 2668-1005 G	**Zika virus (ZIKV) EUROPattern**	IgG PI	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FR 2668-1010 G					10 x 10 (test system)
FR 2668-1005 M		IgM PI			10 x 05 (test system)
FR 2668-1010 M					10 x 10 (test system)
FR 2668-1005-1 G	**Arbovirus Fever Mosaic 2 EUROPattern**	IgG PI	6 BIOCHIPs per field:		10 x 05 (test system)
FR 2668-1010-1 G	**Zika virus (ZIKV)**		infected cells	EU 14	10 x 10 (test system)
FR 2668-1005-1 M	**Chikungunya virus (CHIKV)**	IgM PI	infected cells	EU 14	10 x 05 (test system)
FR 2668-1010-1 M	**Dengue virus types 1 - 4 (DENV)**		infected cells	EU 14	10 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: EUROPattern, Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FR 266a-1005-1 G	Mosaic Dengue virus types 1 - 4 (DENV) EUROPattern	IgG PI	4 BIOCHIPs per field: infected cells	EU 14	10 x 05 (test system)
FR 266a-1010-1 G					10 x 10 (test system)
FR 266a-1005-1 M		IgM PI			10 x 05 (test system)
FR 266a-1010-1 M					10 x 10 (test system)
FR 2730-2010-2 G	Coxsackie virus screen (types A) EUROPattern types A7, A9, A16, A24	IgG PI	4 BIOCHIPs per field: infected cells	EU 38	20 x 10 (test system)
FR 2730-2010-2 M		IgM PI			20 x 10 (test system)
FR 2730-2010-3 G	Coxsackie virus screen (types B) EUROPattern types B1, B2, B3, B4, B5, B6	IgG PI	6 BIOCHIPs per field: infected cells	EU 38	20 x 10 (test system)
FR 2730-2010-3 M		IgM PI			20 x 10 (test system)
FR 277a-1005-1 G	Sandfly fever virus Mosaic 1 EUROPattern types Sicilian, Naples, Toscana, Cyprus	IgG PI	4 BIOCHIPs per field: infected cells	EU 14	10 x 05 (test system)
FR 277a-1005-1 M		IgM PI			10 x 05 (test system)
FR 278h-1005-1 G	Hantavirus Mosaic 1 EUROPattern types Hantaan (HTNV), Sin Nombre (SNV), Puumala (PUUV), Dobrava (DOBV), Seoul (SEOV), Saaremaa (SAAV)	IgG PI	6 BIOCHIPs per field: infected cells	EU 14	10 x 05 (test system)
FR 278h-1005-1 M		IgM PI			10 x 05 (test system)
FR 278m-1005-3 G	Hantavirus Mosaic 3: America EUROPattern types Sin Nombre, Andes	IgG PI	2 BIOCHIPs per field: infected cells	EU 14	10 x 05 (test system)
FR 278m-1005-3 M		IgM PI			10 x 05 (test system)
FR 2791-1005 G	Epstein-Barr virus capsid antigen (EBV-CA) EUROPattern	IgG PI	expressing cells	P3HR1	10 x 05 (test system)
FR 2791-1010 G					10 x 10 (test system)
FR 2791-2010 G					20 x 10 (test system)
FR 2793-1010 C	Epstein-Barr virus nuclear antigen (EBNA) EUROPattern	C3c PI	expressing cells	Raji	10 x 10 (test system)
FR 2795-1010 A	Epstein-Barr virus early antigen (EBV-EA) EUROPattern	IgA PI	expressing cells	EU 33	10 x 10 (test system)
FR 2795-1005 G		IgG PI			10 x 05 (test system)
FR 2795-1010 G					10 x 10 (test system)
FS 2795-1005					10 x 05 (single slides)
FR 293a-1005 G	Chikungunya virus (CHIKV) EUROPattern	IgG PI	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FR 293a-1010 G					10 x 10 (test system)
FR 293a-1005 M		IgM PI			10 x 05 (test system)
FR 293a-1010 M					10 x 10 (test system)

Fluorescence-Labelled Antibodies: Fluorescein (FITC) for IIFT (EUROLabLiquidHandler)

Order No.	Antiserum	Format
AF 101-0546	**FITC-labelled anti-human IgA (goat)**	5 x 46.0 ml (ready for use) in EUROTank
AF 102-0546	**FITC-labelled anti-human IgG (goat)**	5 x 46.0 ml (ready for use) in EUROTank
AF 103-0546	**FITC-labelled anti-human IgM (goat)**	5 x 46.0 ml (ready for use) in EUROTank
AF 106-0546	**FITC-labelled anti-human IgAGM (IgA + IgG + IgM goat)**	5 x 46.0 ml (ready for use) in EUROTank
AF 302-0546	**FITC-labelled anti-human IgG (goat) primate absorbed**	5 x 46.0 ml (ready for use) in EUROTank
AF 601-0546	**FITC-labelled anti-human IgA (goat) with Evans Blue**	5 x 46.0 ml (ready for use) in EUROTank
AF 602-0546	**FITC-labelled anti-human IgG (goat) with Evans Blue**	5 x 46.0 ml (ready for use) in EUROTank
AF 603-0546	**FITC-labelled anti-human IgM (goat) with Evans Blue**	5 x 46.0 ml (ready for use) in EUROTank
AF 606-0546	**FITC-labelled anti-human IgAGM (IgA + IgG + IgM goat) with Evans Blue**	5 x 46.0 ml (ready for use) in EUROTank
AF 612-0546	**FITC-labelled anti-human C3c (rabbit) with Evans Blue**	5 x 46.0 ml (ready for use) in EUROTank
AF 701-0546	**FITC-labelled anti-human IgA (goat) with propidium iodide for EUROPattern**	5 x 46.0 ml (ready for use) in EUROTank
AF 702-0546-2	**FITC-labelled anti-human IgG (goat) with propidium iodide for EUROPattern**	5 x 46.0 ml (ready for use) in EUROTank
AF 703-0546	**FITC-labelled anti-human IgM (goat) with propidium iodide for EUROPattern**	5 x 46.0 ml (ready for use) in EUROTank
AF 712-0546	**FITC-labelled anti-human C3c (rabbit) with propidium iodide for EUROPattern**	5 x 46.0 ml (ready for use) in EUROTank

Diagnostics for Indirect Immunofluorescence: EUROLabLiquidHandler

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1020-12010-1	**pancreas islets**	IgG	pancreas islets (three 1 x 1 mm BIOCHIPs per field)	monkey	120 x 10 (test system)
FA 1111-12010-8	**Neurology Mosaic 8** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves** **non-medullated nerves** **pancreas islets**	IgAGM	4 BIOCHIPs per field cerebellum nerves intestinal tissue pancreas	 monkey monkey monkey monkey	120 x 10 (test system)
FA 1201-12010-4	**Granulocyte Mosaic 4** **cANCA, pANCA, GS-ANA** **cANCA, pANCA** **cell nuclei (ANA)**	IgG	3 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO) HEp-2 cells	 human human human	120 x 10 (test system)
FC 1201-12010-4	**Granulocyte Mosaic 4 EUROPattern** **cANCA, pANCA, GS-ANA, EUROPattern** **cANCA, pANCA, EUROPattern** **cell nuclei (ANA)**	IgG EB	3 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO) HEp-2 cells	 human human human	120 x 10 (test system)
FA 1201-12010-13 **FA 1201-2450-13**	**Granulocyte Mosaic 13** **cANCA, pANCA, GS-ANA** **cell nuclei (ANA), cANCA, pANCA** **cANCA, pANCA**	IgG	3 BIOCHIPs per field: granulocytes (EOH) HEp-2+granulocytes (EOH) granulocytes (HCHO)	 human human human	120 x 10 (test system) 24 x 50 (test system)
FC 1201-12010-13	**Granulocyte Mosaic 13 EUROPattern** **cANCA, pANCA, GS-ANA, EUROPattern** **cell nuclei (ANA), cANCA, pANCA** **cANCA, pANCA, EUROPattern**	IgG EB	3 BIOCHIPs per field: granulocytes (EOH) HEp-2+granulocytes (EOH) granulocytes (HCHO)	 human human human	120 x 10 (test system)
FA 1510-12010-1 **FA 1510-2450-1**	**cell nuclei** **(ANA global test)**	IgG	HEp-2 cells liver (2 BIOCHIPs per field)	human monkey	120 x 10 (test system) 24 x 50 (test system)
FC 1510-12010-1 **FC 1510-2450-1**	**cell nuclei (ANA) EUROPattern** **cell nuclei (ANA)**	IgG PI	HEp-2 cells liver (2 BIOCHIPs per field)	human monkey	120 x 10 (test system) 24 x 50 (test system)
FA 1512-12010-1 **FA 1512-2450-1**	**cell nuclei** **(ANA global test)**	IgG	HEp-20-10 cells liver (2 BIOCHIPs per field)	human monkey	120 x 10 (test system) 24 x 50 (test system)
FC 1512-12010-1 **FC 1512-2450-1**	**cell nuclei (ANA) EUROPattern** **cell nuclei (ANA)**	IgG PI	HEp-20-10 cells liver (2 BIOCHIPs per field)	human monkey	120 x 10 (test system) 24 x 50 (test system)
FA 1520-12010	**cell nuclei (ANA)**	IgG	HEp-2 cells	human	120 x 10 (test system)
FC 1520-12010	**cell nuclei (ANA)** **EUROPattern**	IgG PI	HEp-2 cells	human	120 x 10 (test system)
FC 1522-12010	**cell nuclei (ANA)** **EUROPattern**	IgG PI	HEp-20-10 cells	human	120 x 10 (test system)
FA 1800-12010-2	**Mosaic Basic Profile 2** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	3 BIOCHIPs per field: liver kidney stomach	 rat rat rat	120 x 10 (test system)
FA 1914-12010 A **FA 1914-12010 G**	**endomysium**	IgA IgGpa	liver	monkey	120 x 10 (test system) 120 x 10 (test system)

Further Reagents for EUROIMMUN IIFT (EUROLabLiquidHandler)

Order No.	Reagent	Format
ZF 1020-0530	sample buffer (IIFT)	5 x 30.0 ml (ready for use) in EUROTank
ZF 1020-0530-2	sample buffer 2 (IIFT) (only for the Anti-dsDNA sensitive IIFT)	5 x 30.0 ml (ready for use) in EUROTank
ZF 1020-0530-3	sample buffer 3 (IIFT) (only for the Anti-Borrelia IIFT IgG)	5 x 30.0 ml (ready for use) in EUROTank
ZF 1101-05100	PBS-Tween (IIFT)	5 x 100.0 ml (ready for use) in EUROTank
ZF 1121-0530	CMV buffer (IIFT)	5 x 30.0 ml (ready for use) in EUROTank

Accessories for EUROLabLiquidHandler

Order No.	Item	Format
ZG 0009-0505	Setup Clean	500 ml
ZG 0862-10100	system liquid concentrate	10 x 100 ml (100-fold concentrate)
ZG 0870-0180	EUROTank, colour: black, consumable EUROLabLiquidHandler	80 pieces
ZG 0871-0180	EUROTank, colour: natural, consumable for EUROLabLiquidHandler	80 pieces

Other Items for EUROIMMUN IIFT (EUROLabLiquidHandler)

Order No.	Item	Format
ZZ 9999-0105-11	coded reagent tray with data matrix code for slides with 5 fields	1 piece
ZZ 9999-0110-12	coded reagent tray with data matrix code for slides with 10 fields	1 piece
ZZ 9999-0150-13	coded reagent tray with data matrix code for slides with 50 fields	1 piece

Autoimmune diagnostics

Rheumatology

CTD · SLE · Vasculitis · RA · APS

For more information on this subject scan the QR code or enter the Quick Link code q030 at www.euroimmun.com

Connective tissue diseases

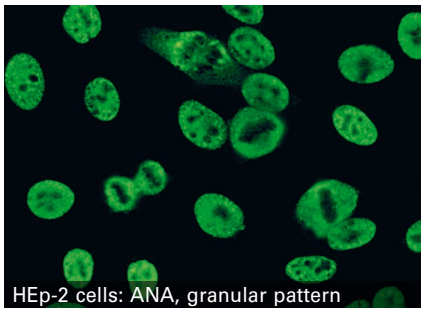
Clinical information: Connective tissue diseases (CTD) are rheumatic diseases. They include, for example, systemic lupus erythematosus (see chapter SLE), progressive systemic sclerosis, Sjögren's syndrome, myositis or Sharp syndrome.

Autoantibodies whose target antigens are located in the nucleus (so-called anti-nuclear antibodies, ANA) are important serological markers for CTD. Target antigens include, for example, nucleic acids, cell nuclear proteins and ribonuclear proteins.

The frequency (prevalence) of anti-nuclear antibodies in inflammatory rheumatic diseases lies between 20 and 100 %. Therefore, differential ANA diagnostics is indispensable for the diagnosis of individual rheumatic diseases and their differentiation from other autoimmune diseases.

Diagnostics: The gold standard for the determination of ANA is the indirect immunofluorescence test (IIFT) with human epithelial cells (HEp-2), which is known for its high sensitivity and specificity. Positive and negative samples produce a large signal difference. In the microscopic evaluation it is possible to establish precisely how an indicator dye (generally fluorescein) is distributed in the tissue or the cells. A typical fluorescence pattern is produced for every bound autoantibody, depending on the location of the individual autoantigens.

The first international consensus on standardised nomenclature of HEp-2 cell patterns in indirect immunofluorescence (ICAP, www.anapatterns.org) defined fourteen nuclear patterns and nine cytoplasmic patterns which are relevant for the diagnosis of various autoimmune diseases.


HEp-2 cells: ANA, granular pattern

Furthermore, the consensus recommends that autoantibodies detected in indirect immunofluorescence be confirmed by additional specific tests (e.g. ELISA, line blot). The exclusive use of these monospecific test methods is inadequate for the determination of autoantibodies against cell nuclei, as not all relevant antigens are available in a purified form as yet. Thus, the corresponding ANA can only be detected by IIFT.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	HEp-2 cells	Gold standard ANA screen	FA 1520-####	150
	HEp-20-10 cells	Easier evaluation due to increased number of mitotic phases	FA 1522-####	151
	HEp-2 cells/ liver	Additional differentiation of patterns using liver tissue	FA 1510-####-1	149
	HEp-20-10 cells/ liver/nRNP/Sm + Sm + SS-A SS-B + Scl-70 + Jo-1	Screening and confirmation on monospecific EUROPLUS antigen dots in one test system	FA 1512-####-22	150
ELISA	dsDNA, histones, ribosomal P-proteins, nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, centromeres	ANA screen ELISA using an antigen mixture that is specific for rheumatic diseases	EA 1590-9601-8 G	134
	Ribosomal P-proteins, nRNP/ Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, centromeres	ENA profile ELISA as confirmatory test based on individual monospecific antigens	EA 1590-9601-2 G	134
	cN-1A	Ab against cN-1A are the first serological marker for inclusion body myositis	EA 1675-4801 G	135
Blot	dsDNA, nucleosomes, histones, SS-A, Ro-52, SS-B, nRNP/Sm, Sm, Mi-2α, Mi-2β, Ku, CENP A, CENP B, Sp100, PML, Scl-70, PM-Scl100, PM-Scl75, RP11, RP155, gp210, PCNA, DFS70	Multiplex approach for confirmation and differentiation of all ANA patterns in agreement with the international consensus, ICAP (www.anapatterns.org)	DL 1590-1601-23 G	132
	AMA-M2, M2-3E, ribosomal P-proteins, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52	Profile for confirmation and differentiation of all cytoplasmic patterns (ICAP)	DL 1590-1601-35	132
	Mi-2α, Mi-2β, TIF1γ, MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52	Comprehensive profile of myositis-specific antigens	DL 1530-1601-4 G	131
	Scl-70, CENP A, CENP B, RP11, RP155, fibrillarin, NOR90, Th/To, PM-Scl100, PM-Scl75, Ku, PDGFR, Ro-52	Comprehensive profile of systemic sclerosis-specific antigens	DL 1532-1601 G	132

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Rheumatology

CTD · SLE · Vasculitis · RA · APS

For more information on this subject scan the QR code or enter the Quick Link code q042 at www.euroimmun.com

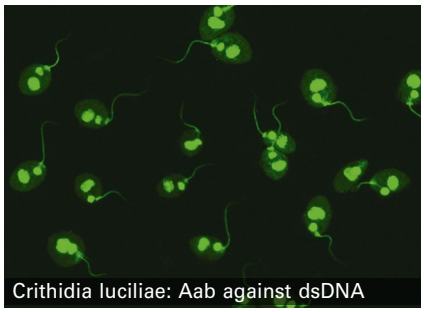
Systemic lupus erythematosus

Clinical information: Systemic lupus erythematosus (SLE) is a systemic autoimmune disease belonging to the collagenosis group. Diagnosis is based on 11 criteria defined by the American College of Rheumatology (ACR) and modified in 1997. If 4 of 11 criteria are present, the probability of SLE is between 80 and 90 %.

Antibodies against dsDNA are the main focus in the serological diagnosis of SLE. These antibodies can be found in 60 to 90 % of patients, depending on the activity of the disease. Anti-dsDNA antibodies are in rare cases also found in patients with other autoimmune diseases (e.g. autoimmune hepatitis) or infections as well as in clinically healthy persons. 85 % of people in the latter group develop SLE within 5 years of initial detection of anti-dsDNA. However, SLE cannot be excluded if anti-dsDNA antibodies are not detected.

Antibodies against nucleosomes are also an exclusive marker of SLE, provided that they are determined using an advanced test system with a target antigen that is free of histone H1, Scl-70 and other non-histone proteins.

Diagnostics: Various test methods are available for the routine detection of autoantibodies against dsDNA: enzyme immunotests (ELISA, EUROASSAY, EUROLINE), Farr RIA and the Crithidia luciliae immunofluorescence test (CLIFT). The various test systems differ, sometimes greatly, in sensitivity and specificity. Conventional CLIFT shows a particularly high disease specificity, while the *IIFT Crithidia luciliae sensitive* is a very sensitive test.


Crithidia luciliae: Aab against dsDNA

Using an innovative biological preparation, scientists at EUROIMMUN have developed a new test system: the Anti-dsDNA-NcX ELISA, which surpasses by far the diagnostic quality characteristics of all conventional anti-dsDNA ELISA. The secret of the innovation lies in the use of highly purified nucleosomes as the new linking substance. Since nucleosomes have a strong adhesive ability, even the smallest concentration of these is highly suited to coupling isolated dsDNA to the surface of a microplate well. Poly-L-lysine and protamine sulphate are now obsolete, and many false positive reactions can be avoided. In a clinical comparative study of 378 patients with rheumatic diseases (of these 209 with SLE), the Anti-dsDNA-NcX ELISA yielded an 8 % higher sensitivity than the anti-dsDNA RIA (Farr assay), demonstrating its superior capabilities.

Nevertheless, different test methods identify different SLE subgroups. To increase the serological detection rate different test systems should be combined.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Crithidia luciliae	Conventional IIFT with high specificity	FA 1572-####	151
	Crithidia luciliae sensitive	Screening IIFT with high sensitivity	FA 1572-####-1	151
	HEp-2 cells	Detection of the SLE-specific pattern homogeneous ANA on HEp-2 cells	FA 1520-####	150
ELISA	Highly purified genomic double-stranded DNA complexed with nucleosomes	Optimal first-line test, increased sensitivity and specificity through use of nucleosome linker	EA 1572-9601 G	134
	Nucleosomes	Highly specific detection of anti-nucleosome antibodies through use of highly purified mononucleosomes, which are free of contaminating proteins	EA 1574-9601 G	134
	dsDNA, histones, nucleosomes, nRNP/Sm, Sm, SS-A, SS-B, Scl-70	Profile ELISA with SLE-relevant antigens	EA 1590-9601-12 G	134
RIA	Plasmid DNA	Gold standard Farr assay for detection of anti-dsDNA antibodies	RA 1571-10001	137

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Rheumatology

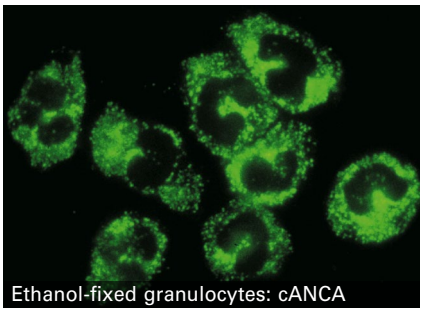
CTD · SLE · Vasculitis · RA · APS

For more information on this subject scan the QR code or enter the Quick Link code q046 at www.euroimmun.com

Vasculitis

Clinical information: According to the consensus introduced at the Chapel-Hill-Consensus conference and the generally renowned classification system, granulomatosis with polyangiitis (GPA, formerly: Wegener's granulomatosis, WG), microscopic polyangiitis (MPA), eosinophilic granulomatosis with polyangiitis (EGPA, formerly: Churg-Strauss syndrome (CSS)) are classed as the group of ANCA-associated vasculitides (AAV). ANCA (anti-neutrophil cytoplasm antibodies) are autoantibodies directed against antigens found in cytoplasmic granules of neutrophils and monocytes. They are important serological markers for the diagnosis of AAV.

Moreover, an association with ANCA has been described for some of the immune complex vasculitides. Patients with anti-GBM glomerulonephritides (serological marker: antibodies against the glomerular basement membrane; anti-GBM) are often ANCA positive (>35 %). A positive result can indicate rapid-progressive glomerulonephritis or GPA. In patients with AAV with renal involvement, the parallel analysis of ANCA and anti-GBM antibodies is thus recommended.


Ethanol-fixed granulocytes: cANCA

Diagnostics: AAV diagnostics are primarily based on IIFT. Standard for IIFT is a BIOCHIP mosaic of ethanol (EOH)- and formaldehyde (HCHO)-fixed human granulocytes. Further EUROIMMUN-exclusive BIOCHIPs, e.g. HEp-2 cells with sedimented granulocytes, further increase the diagnostic certainty. The EUROPLUS technique allows the combination of conventional cell culture substrates with defined single antigens (PR3, MPO, GBM) on one test field. This considerably simplifies the interpretation of the immunofluorescence patterns.

IIFT allows the differentiation of two ANCA types: the cytoplasmic type (cANCA), which is associated with GPA and is almost always directed against proteinase 3 (PR3), and the perinuclear type (pANCA), which indicates a spectrum of various diseases. The main target antigen of pANCA in MPA and EGP is myeloperoxidase (MPO), but antibodies against granulocyte elastase, lactoferrin, lysozyme, cathepsin G, beta-glucoronidase, azurocidin, h-lamp-2 and alpha-enolase are also found in connection with pANCA.

Positive IIFT results should always be confirmed with a monospecific anti-PR3 and anti-MPO test (e.g. ELISA (International Consensus Statement, Savige et al., Am J Clin Pathol, 1999 & 2003). Since not all cANCA and pANCA are positive in the ELISA, the highest sensitivity and specificity for ANCA detection can only be achieved with parallel performance of IIFT and ELISA.

pANCA are also of great relevance in the differentiation of chronic inflammatory bowel diseases (67 % ulcerative colitis, 7 % Crohn's disease). DNA-bound lactoferrin has been identified as the main target antigen (Teegen et al., Ann N Y Acad Sci, 2009).

Innovative Anti-PR3-hn-hr ELISA with designer antigen: The reagent wells of the Anti-PR3-hn-hr ELISA are coated with a mixture of human native (hn) and human recombinant (hr) PR3. Owing to this, the test as a significantly higher sensitivity (94%) at a very good specificity (99%) compared to other ELISAs using only a native antigen (88% and 78%, respectively). The significantly higher sensitivitiy of the PR3-hn-hr ELISA and its suitability or identifying relapses in patients under treatment has been described in an independent publication (Damoiseaux et al., Ann Rheum Dis, 2009).

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Granulocytes (EOH)	Minimum IIF screening test for ANCA	FA 1201-####-2	142
	Granulocytes (EOH)/ HEp-2 + granulocytes (EOH)/ granulocytes (HCHO)	Gold standard IIF screening test for ANCA	FA 1201-####-13	142
	Granulocytes (EOH)/ HEp-2 + granulocytes (EOH)/ granulocytes (HCHO)/ PR3/MPO BIOCHIPs	ANCA screening and confirmation on monospecific EUROPLUS antigen dots in one test system	FA 1###-####-32	144
	Granulocytes (EOH)/ HEp-2 + granulocytes (EOH)/ granulocytes (HCHO)/ PR3/MPO/GBM/ BIOCHIPs	ANCA screening and confirmation on monospecific EUROPLUS antigen dots (incl. GBM) in one test system	FA 1###-####-25	143
ELISA	Human proteinase 3 native and recombinant (human cDNA expressed in a human cell line, PR3-hn-hr)	Monospecific confirmatory test for anti-PR3 Ab: higher sensitivity and highest specificity through combination of native and rec. PR3 antigens	EA 1201-9601-2 G	133
	Human MPO native	Monospecific confirmatory test for anti-MPO	EA 1211-9601 G	133
	PR3, MPO, elastase, cathepsin G, BPI, lactoferrin	Profile ELISA with ANCA-associated antigens	EA 1200-1208-1 G	133
Blot	PR3, MPO, GBM	Monospecific multiplex detection of ANCA	DL 1200-1601-3 G	131

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Rheumatology

CTD · SLE · Vasculitis · RA · APS

For more information on this subject scan the QR code or enter the Quick Link code q037 at www.euroimmun.com

Rheumatoid arthritis

Clinical information: Rheumatoid arthritis (RA) is characterised by painful, swollen joints, movement restriction and progressing joint destruction. 0.5 to 1 % of the worldwide population is affected, women approximately twice as often as men. Most new cases are diagnosed in women between 55 and 64 years and in men between 65 and 75 years. A large share of RA patients (approx. 70 %) produce autoantibodies against citrullinated peptides (ACPA). Consequently, immune complexes are formed and the inflammation of the joints proceeds.

Autoantibodies in RA appear on average 3 to 5 years, sometimes even 15 years before the first joint complaints. The most important autoantibodies in preclinical RA are rheumatoid factors (RF) and ACPA and those directed against Sa (citrullinated vimentin) and citrullinated enolase peptide 1 (CEP-1). For the detection of ACPA, mainly cyclic citrullinated peptides (CCP) are used as target antigens. ACPA are specific for RA and indicators of a severe, erosive destructive course. During the shift from the undifferentiated arthritis phase towards RA, ACPA levels increase and remain high. ACPA have a high predictive value for the development of RA. Their detection supports the early recognition of the disease.

Diagnostics: Since 2010, ACPA determination has been a component of the RA classification criteria of the American College of Rheumatology (ACR) and the European League Against Rheumatism (EULAR). ACPA are determined in parallel to rheumatoid factors. A high ACPA (and RF) titer supports the diagnosis RA. Laboratory findings such as increased erythrocyte sedimentation rate, increased C-reactive protein and the detection of RF and/or ACPA are indicative of RA.

Anti-CCP ELISAs of the 2nd generation (CCP 2) are considered the gold standard for detection of ACPA. They have the highest sensitivity (80 %, at 98 % specificity). Antibodies against CCP are mainly of class IgG. Anti-CCP antibodies are more specific than RF, at a similar sensitivity. They are detected in up to 60 % of RF-negative RA patients.

CEP-1 is a further relevant autoantigen which is present in approx. 60 % of the anti-CCP positive RA patients. The detection of antibodies against CEP-1 is highly specific for RA (specificity: 97.6 %) and therefore suited as a supplementary test for confirmation of serological findings. Moreover, the detection of anti-CEP-1 supports the risk stratification: Anti-CEP-1 antibodies are associated with an erosive disease course and with interstitial lung diseases (Alunno et al. 2018). Furthermore, anti-CEP-1 antibodies occur with a subtype of RA in which smoking and the HLA-DRB1 “shared epitope” alleles represent the main risk factors (Mahdi et al. 2009). Since anti-CEP-1 antibodies are directed against a target antigen which actually occurs in RA, their detection can provide insight into the cause and the pathogenesis of the disease.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	HEp-2 cells	Gold standard ANA screen	FA 1520-####	150
ELISA	Cyclic citrullinated peptide (CCP)	Highly specific and prognostic test for the detection of RA-specific anti-CCP antibodies	EA 1505-9601 G	134
	Citrullinated alpha-enolase peptide 1 (CEP-1)	Highly specific autoantigen associated with particular subtypes of RA	EA 151b-9601 G	134
	Human IgG	Conventional rheumatoid factor IgM detection (also available for detection of rheumatoid factor IgA/IgG)	EA 1814-9601 M	135

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Rheumatology

CTD · SLE · Vasculitis · RA · APS

For more information on this subject scan the QR code or enter the Quick Link code q004 at www.euroimmun.com

Anti-phospholipid syndrome

Clinical information: The first official classification criteria for anti-phospholipid syndrome (APS) were drafted in 1998 at a workshop at the 8th International Symposium on Anti-phospholipid Antibodies in Sapporo, Japan (Sapporo criteria; Wilson et al., Arthritis & Rheumatism 1999). According to these criteria, APS can be considered proven if at least one clinical and one serological criterion are met. Clinical criteria include vascular thrombosis, which must be established according to the stipulated criteria, and pregnancy complications such as premature births, spontaneous abortions and eclampsia.

When the criteria were updated in 2004 (Miyakis criteria; Miyakis et al., Journal of Thrombosis and Haemostasis 2005) antibodies against β2 glycoprotein 1 were added. Fulfilment of the criteria now encompasses at least one of the following three parameters: antibodies against cardiolipin (ACA; IgG or IgM) or β2 glycoprotein 1 (anti-β2GP1; IgG or IgM) or a positive lupus anticoagulant (LA) test. The latter is a coagulation test. According to official recommendations the serological criteria for APS diagnosis are only fulfilled when the result is confirmed 12 weeks later in a further test. A further update of the classification criteria in 2012 (Lakos et al., Arthritis & Rheumatism 2012) included the additional recommendation that when IgG and IgM tests for ACA or anti-β2GP1 IgG are negative, IgA should be tested as well.

In serological APS diagnostics autoantibodies of several immunoglobulin classes (IgAGM) can occur simultaneously, although often only one Ig class is detected. The association of particular immunoglobulin classes (IgAGM) with particular clinical parameters is controversially discussed.

Since around 10% of the healthy normal population exhibit anti-phospholipid antibodies (APLA) in the form of ACA or LA and these antibodies can also be induced by infections or specific medications (e.g. procainamide and hydralazine), it is important to connect the serological results with clinical criteria.

Diagnostics: ELISA is the method of choice for detection of APLA, since it is highly sensitive, simple to perform and does not require fresh plasma. EUROIMMUN offers microtiter ELISAs for quantitative determination of autoantibodies against cardiolipin, β2GP1 and phosphatidylserine. The immunoglobulin classes IgA, IgG and IgM can be investigated separately or together (IgAGM). Alternatively, lupus anticoagulant can be determined using a multi-stage procedure according to the guidelines of the International Society on Thrombosis and Haemostasis. The phospholipid-dependent coagulation tests used for this purpose have a high specificity for APS, but a low sensitivity. Moreover, since there is no gold standard, results vary depending on the test method used, making it difficult to obtain reliable serological results.

EUROIMMUN ELISAs for the detection of antibodies against cardiolipin and β2GP1 show a very high specificity in clinical studies. Sera from patients with viral hepatitis or parvovirus B19 infections and sera from healthy blood donors demonstrated only 0 to 2% positive results, while in studies using tests from other manufacturers values of between 12 and 50% were obtained. APLA can occur in cases of syphilis, which explains the somewhat high

occurrence (11 to 13%) of ACA and anti-β2GP1 antibodies in these patients. The prevalence of both autoantibodies in APS (86%) and SLE (24 to 25%) corresponds to data in current literature. For ACA in particular a very high agreement with an international meta-study was found (cohort of 1000 patients, 88% of APS patients were ACA positive; Cervera R. et al., Arthritis & Rheumatism 2002).

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Cardiolipin (AMA-M1)	Highly specific ELISA for the detection of anti-cardiolipin antibodies of classes IgG and IgM as recommended by the consensus statement (also available for detection of IgA and IgAGM)	EA 1621-9601 G/M	135
	β2-glycoprotein 1	ELISA for the detection of antibodies against β2-glycoprotein 1 of classes IgG and IgM as recommended by the consensus statement (also available for detection of IgA and IgAGM)	EA 1632-9601 G/M	135
	Phosphatidylserine	ELISA for the detection of antibodies against phosphatidylserine (also available for detection of IgA and IgAGM)	EA 162a-9601 G/M	135

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Hepatology

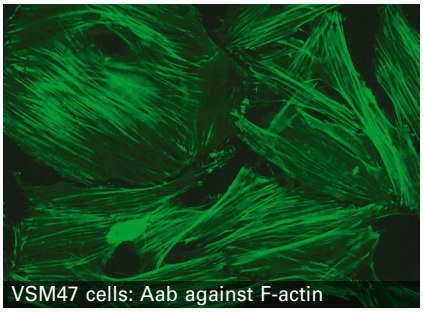
Autoimmune hepatitis · Primary biliary cirrhosis

For more information on this subject scan the QR code or enter the Quick Link code q007 at www.euroimmun.com

Autoimmune hepatitis

Clinical information: Autoimmune hepatitis (AIH; previously called lupoid hepatitis, chronic active hepatitis) predominantly affects women (75 % of cases). The disease manifests by an increase in bilirubin, liver enzymes and immunoglobulins, by characteristic histological changes (liver biopsy shows necrosis of the parenchyma cells with lymphocyte and plasma cell infiltration) and the presence of various autoantibodies. The disease can occur from early childhood up to old age, but is most frequent in young to middle adulthood. In Western Europe the incidence of AIH is 1.9 cases per 100,000 inhabitants per year. Untreated, AIH soon develops into liver cirrhosis. However, with low-dose immunosuppressive therapy administered in good time and consistently right up until death, patients have a normal life expectancy. In the differential diagnosis, an infection with hepatitis viruses must be ruled out through the investigation of the appropriate serological parameters.

Diagnostics: Circulating autoantibodies have come to play a significant role in the diagnosis of AIH. They occur in the majority of patients, although their role in pathogenesis is debatable. There is no clear correlation between the disease activity or prognosis and the antibody titer.


VSM47 cells: Aab against F-actin

The following autoantibodies are associated with AIH: antibodies against cell nuclei (ANA), native DNA, smooth muscle (ASMA, most important target antigen: F-actin), soluble liver antigen/liver-pancreas antigen (SLA/LP), liver-kidney microsomes (LKM-1, target antigen: cytochrome P450 IID6) and liver cytosolic antigen type 1 (LC-1, target antigen: formiminotransferase cyclodeaminase). The autoantibodies against SLA/LP that can today be detected by various EUROIMMUN enzyme immunoassays have the highest diagnostic accuracy of all antibodies involved in AIH. Anti-SLA/LP antibodies occur in AIH either alone or together with other autoantibodies. Their prevalence is only between 10 and 30 %, but the predictive value is almost 100 %. Essentially, every positive finding is evidence of autoimmune hepatitis (as long as the corresponding clinical symptoms are present).

Furthermore, high concentrations of autoantibodies against smooth muscles (ASMA) indicate AIH. One part of the antibodies is directed against conformational epitopes of F-actin, which are only present in frozen tissue sections or tissue cells and cannot therefore be detected by ELISA or Westernblot. In contrast to other ASMA, antibodies against F-actin are a very specific marker for type 1 AIH. With the cell line VSM47 (vascular smooth muscle) the microfilamentous (MF) fluorescence pattern can be easily and clearly differentiated from non-MF patterns, thus facilitating the diagnosis of type 1 AIH.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	VSM47	Specific cell line for the detection of antibodies against F-actin by IIFT	FA 1651-####	152
	HEp-2 cells, liver, kidney, stomach	Basic profile for the detection of ANA, AMA, ASMA, LKM	FA 1800-####-3	153
	Liver, VSM47, HEp-2 cells, liver, kidney, stomach	Comprehensive detection of AIH-specific antibodies with a BIOCHIP Mosaic of 6 substrates	FA 1300-####-8	145
	Liver, kidney, stomach, soluble liver antigen/liver-pancreas antigen (SLA/LP) expressed in a human cell line	BIOCHIP Mosaic of 4 substrates for detection of AIH-specific antibodies and precise delimitation from other hepatitides	FA 1300-####-21	146
ELISA	Soluble liver antigen/ liver-pancreas antigen (SLA/LP)	Specific antibodies for precise discrimination from other hepatitides	EA 1302-9601 G	133
	Liver-kidney microsomes (LKM-1)	Serological marker for type 1 AIH	EA 1321-9601 G	133
	Cytosolic liver antigen type 1 (LC-1)	Supplementary diagnostic parameter for AIH	EA 1307-9601 G	133
Blot	AMA-M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, Ro-52	EUROLINE Profile Autoimmune Liver Diseases enables analysis of nine different AIH- and PBC-relevant autoantibodies on one test strip	DL 1300-1601-4 G	131
	AMA-M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, SS-A, Ro-52, Scl-70, CENP A, CENP B and PGDH	The EUROLINE enables analysis of fourteen different autoantibodies for the diagnosis of PBC, in suspected cases of AIH and overlap syndromes	DL 1300-1601-5 G	131

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q057 at www.euroimmun.com

Hepatology

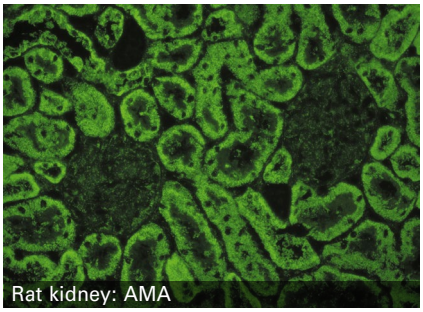
Autoimmune hepatitis · Primary biliary cirrhosis

For more information on this subject scan the QR code or enter the Quick Link code q035 at www.euroimmun.com

Primary biliary cirrhosis

Clinical information: Primary biliary cirrhosis (PBC) is an immune-mediated chronic inflammatory cholestatic liver disease of unknown aetiology. The disease is characterised by female predominance (>90%) with most cases observed between the ages of 40 and 60. PBC incidence in different parts of the world is estimated to be 4 to 31 cases/million per year. PBC is marked by lymphocellular infiltration around the small intra-hepatic biliary ducts (bile canaliculi) and the build-up of bile (cholestasis). The disease often begins with unspecific, very varying general symptoms, such as itching (pruritus), fatigue and pain in the upper right region of the abdomen. An obstructive jaundice develops after a varying period of time. The increase in serum lipids is an important indicator for PBC. Histologically, changes occur in the liver corresponding to a chronic, non-suppurative destructive cholangitis: granulating pericholangitis, i.e. slowly progressing destruction of the small and medium-sized biliary ducts with subsequent fibrosis, the final stage of which is complete cirrhosis. In addition to the liver, often other organs with exocrine functions are also affected, above all the lachrymal and salivary glands and the pancreas.

Diagnostics: The diagnosis of PBC includes liver function tests (determination of alkaline phosphatase, aspartate transaminase and alanine transaminase), the determination of serum lipids, screening for anti-mitochondrial antibodies (AMA) and anti-nuclear antibodies (ANA) and the differentiation from other chronic inflammatory diseases of the liver, such as chronic viral hepatitis, autoimmune hepatitis or primary sclerosing cholangitis.


Rat kidney: AMA

The detection of AMA is of great importance in the diagnosis of PBC. Antibodies against the M2 antigen are the most sensitive and specific diagnostic marker. These antibodies can be found in 94% of PBC patients. High-titer anti-M2 antibody seropositivity is an important tool in the diagnosis of PBC and a very powerful predictor of future development of PBC in patients without significant liver function disorders or symptoms suggestive of cholestatic diseases. Besides AMA, ANA may also be found in about one third of patients with PBC by indirect immunofluorescence. Promyelocytic leukaemia (PML) proteins and Sp100, which generate a nuclear dot pattern in IIFT, and two components of the nuclear pore complex (gp210 and p62) that have been specifically associated with a perinuclear pattern have been identified as specific ANA target antigens in PBC.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Kidney	Gold standard for the detection of AMA	FA 1620-####	151
	HEp-2 cells, liver, kidney, stomach	Basic profile for the detection of ANA, AMA, ASMA	FA 1800-####-3	153
	HEp-2 cells	Detection of further antibodies besides AMA: nuclear dots (Sp100, PML) and nuclear membrane (gp210 and p62)	FA 1520-####	150
	Kidney, stomach, HEp-2 cells, M2 BIOCHIPs	Mosaic of tissue substrates and HEp-2 cells supplemented by a EUROPLUS BIOCHIP with purified M2 antigen	FA 1620-####-5	152
ELISA	AMA M2-3E	ELISA with highest sensitivity through a combination of all three multi-enzyme complexes of the M2 antigen	EA 1622-9601 G	135
Blot	AMA-M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, Ro-52	EUROLINE Profile Autoimmune Liver Diseases enables analysis of nine different AIH- and PBC-relevant autoantibodies on one test strip	DL 1300-1601-4 G	131
	AMA-M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, SS-A, Ro-52, Scl-70, CENP A, CENP B and PGDH	The EUROLINE enables analysis of fourteen different autoantibodies for the diagnosis of PBC, in suspected cases of AIH and overlap syndromes	DL 1300-1601-5 G	131

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q091 at www.euroimmun.com

Gastroenterology

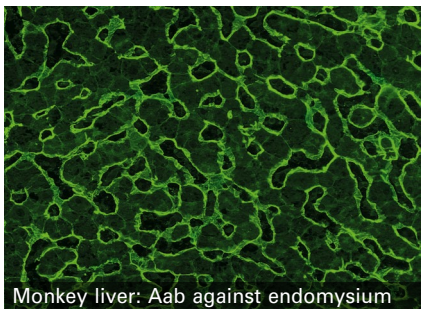
Coeliac disease · CIBD · Pernicious anaemia

For more information on this subject scan the QR code or enter the Quick Link code q048 at www.euroimmun.com

Coeliac disease

Clinical information: Gluten-sensitive enteropathy (GSE; in children: coeliac disease; in adults: non-tropical sprue) is an autoimmune disease which occurs in predisposed individuals as a reaction to gluten sensitivity. As far as is known today, gliadin peptides are resorbed in the intestinal mucosa and deamidated by the enzyme tissue transglutaminase (tTG). This causes the transformation of glutamine to glutamic acid at defined amino acid positions. In individuals with a genetic predisposition, the gliadin peptides bind to HLA-DQ2/DQ8 molecules of the antigen-presenting cells and are presented to helper T cells. An extensive immune reaction is triggered, causing pathological tissue changes, particularly damage to the small intestine. Symptoms resulting from this damage include atrophy of the small-intestinal villi, chronic diarrhoea, and the consequences of malabsorption, such as underweight and avitaminosis. Some patients with coeliac disease also suffer from Duhring's disease (10%), a chronic skin disease accompanied by blister formation. Coeliac disease is also associated with miscarriages in the first pregnancy trimester. Known long-term damage includes mainly osteoporosis and lymphoma of the small intestine. The prevalence of symptomatic GSE in Germany is around 100 cases per 100,000 inhabitants. The diagnosis of latent coeliac disease is a particular challenge for physicians. In paediatrics, all cases of unexplained growth disorders, retarded development, and chronic diarrhoea should be considered for the possibility of coeliac disease.

Diagnostics: For the diagnosis of coeliac disease, antibodies against endomysium (EmA), tTG and deamidated gliadin peptides can be determined. With almost 100% sensitivity and specificity, IgA class antibodies against endomysium and tTG have a very high diagnostic relevance. Serodiagnostics is also suited to therapy monitoring in addition to confirming the diagnosis.


Monkey liver: Aab against endomysium

According to the new **guidelines of the European Society of Pediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN)** there are various diagnostic algorithms (Husby et al., 2012): on the one hand, for patients with symptoms indicating coeliac disease and, on the other hand, for asymptomatic patients with an increased risk for coeliac disease (e.g. first-grade relatives of coeliac-disease patients, and risk patients with type 1 diabetes mellitus, autoimmune thyroiditis, selective IgA deficiency, autoimmune hepatitis and Down or Turner syndrome).

For optimal diagnostic results for coeliac disease, antibodies against tTG IgA and total IgA should be primarily investigated in **patients with corresponding symptoms**. The new guidelines also emphasise the high relevance of EmA and HLA-DQ2/DQ8 analysis (see page 268) and of tests detecting IgG antibodies specific for coeliac disease, such as the analysis of antibodies against deamidated gliadin peptides (GAF-3X). **Patients at risk of coeliac disease** should first be investigated for the presence of HLA-DQ2/DQ8. If a negative result is obtained, coeliac disease can be as good as excluded.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Liver	Characteristic fluorescence enables easy identification of EmA	FA 1914 A or G	155
	Oesophagus	Classic substrate for detection of EmA	FA 1911 A or G	154
	Small intestine	Alternative substrate to primate oesophagus	FA 1913 A or G	154
	Liver, gliadin (GAF-3X) BIOCHIPs	Mosaic of tissue substrate supplemented by a EUROPLUS BIOCHIP with purified GAF-3X antigen	FA 1914-1 A or G	155
ELISA	Tissue transglutaminase (endomysium; class IgA)	Established anti-tTG ELISA for diagnosis and therapy monitoring	EA 1910-9601 A	135
	Tissue transglutaminase (endomysium; class IgG)	Supplementary ELISA for diagnosis of coeliac disease in patients with IgA deficiency	EA 1910-9601 G	135
	Gliadin (GAF-3X; class IgG)	Innovative ELISA for the detection of antibodies against deamidated gliadin peptides – highly specific for coeliac disease (comparable to anti-tTG IgA), for diagnosis in patients with IgA deficiency	EV 3011-9601 G	136
	Gliadin (GAF-3X; class IgA)	Supplementary serological test for coeliac disease diagnostics	EV 3011-9601 A	136
Blot	Tissue transglutaminase (endomysium), gliadin (GAF-3X)	EUROLINE Coeliac Disease Profile, simultaneous determination of tTG and GAF-3X antibodies (IgG or IgA), recognises selective IgA deficiency and the criterion “>10xULN“.	DL 1910-#### G DL 1910-#### A	132

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Gastroenterology

Coeliac disease · CIBD · Pernicious anaemia

For more information on this subject scan the QR code or enter the Quick Link code q011 at www.euroimmun.com

Chronic inflammatory bowel diseases

Clinical information: The most important chronic inflammatory bowel diseases (CIBD) include ulcerative colitis (UC) and Crohn's disease (CD).

UC belongs to the genetically predisposed CIBD with autoimmune reactions against the mucosa and submucosa of the colon or rectum and increased immune reactions against the intestinal flora. The inflammation spreads continuously from the rectum, that is from the anal region upwards.

CD is classified as an autoimmune disease of the intestinal mucosa and is among the CIBD with a high recurrence rate. The chronic granulomatous inflammation, which can affect the whole digestive tract from the oral cavity to the anus, is found in most cases only in the lower small intestine (terminal ileum) and the large intestine (colon), very rarely in the oesophagus and mouth. A discontinuous, segmental attack on the intestinal mucosa, with several sections of the intestine being affected simultaneously, is characteristic for CD.

Diagnostics: Differential diagnostics are, along with targeted diagnostics, essential for the differentiated diagnosis of CIBD. The high diagnostic requirements are met by IIFT single assays as well as by various highly specific IIFT mosaics (CIBD profiles), which have been developed especially for the serological diagnosis of the autoimmunological bowel diseases CD and UC.

Autoantibodies against acinus cells of the exocrine pancreas are a reliable marker for CD. They have a high disease-specific significance due to their organ specificity, disease association and frequently high serum concentration. Due to the fact that the inflammation of the intestinal wall in CD is caused by the autoantigens contained in the pancreas secretion, particularly the proteoglycans CUZD1 and GP2, the determination of autoantibodies against the pancreas antigens rPAg1 (CUZD1) and/or PAg2 (GP2) using IIFT represents a new dimension in the serological diagnosis of CD. Antibodies against Saccharomyces cerevisiae (ASCA) enrich the serological diagnosis of CD by a further specific parameter.


Monkey intestine: Aab against goblet cells

Autoantibodies against intestinal goblet cells, which occur exclusively in UC, are pathognomonic markers for this autoimmune disease. The target antigen responsible for UC has not yet been exactly identified. The serological determination of autoantibodies against DNA-bound lactoferrin contributes significantly to the diagnosis of CIBD, particularly of UC.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Pancreas antigens rPAg1(CUZD1) / rPAg2(GP2), intestinal goblet cells, granulocytes, lactoferrin-specific granulocytes, Saccharomyces cerevisiae	Efficient screening and differentiation test for detection of antibodies in CIBD	FA 1391-####-4	147
	Lactoferrin-specific granulocytes, HSS granulocytes	Monospecific detection of antibodies against DNA-bound lactoferrin (DNA-ANCA)	FA 1215-####-1	144
	Pancreas antigens rPAg1(CUZD1) / rPAg2(GP2)	Transfected cells for the specific detection of antibodies against target antigens of exocrine pancreas in CD	FA 1391-####-1	146
ELISA	Saccharomyces cerevisiae	Monospecific detection of antibodies against S. cerevisiae in CD (also available for IgG detection)	EV 2841-9601 A	136

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Gastroenterology

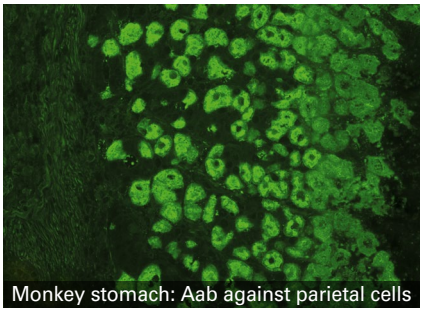
Coeliac disease · CIBD · Pernicious anaemia

For more information on this subject scan the QR code or enter the Quick Link code q034 at www.euroimmun.com

Pernicious anaemia

Clinical information: Pernicious anaemia (PA) is characterised by a vitamin B12 deficiency with the symptoms of hyperchromic anaemia. Characteristic is the appearance of megaloblasts in the bone marrow and of megalocytes in the blood, which can be remedied by prescribing vitamin B12 (extrinsic factor). In the case of chronic atrophic gastritis, the stomach mucosa is infiltrated by lymphocytes, plasma cells and granulocytes. Epithelial cells become necrotic, while peptic and parietal cells are replaced by mucoid cells. As a final stage, atrophy develops over many years. Chronic atrophic gastritis leads to a limited production of pepsin, hydrochloric acid and intrinsic factor. As a reaction to this, G-cells proliferate and secrete an increased amount of gastrin. PA frequently develops from chronic atrophic gastritis after many years (vitamin B12 storage). PA is an autoimmune disease. Autoantibodies against intrinsic factor and against parietal cells of the stomach are involved in its pathogenesis, while cellular immune mechanisms also play an important role.

Diagnostics: Autoantibodies against intrinsic factor (IF) are specific for PA, but are not detectable in the serum of every PA patient. Antibodies against type 1 IF occur in the serum of 70% of PA patients. Antibodies against type 2 IF occur in 35% of PA patients, but only if antibodies against type 1 IF are present.


Monkey stomach: Aab against parietal cells

Autoantibodies against parietal cells can be detected in patients with chronic atrophic gastritis and PA, but also occur in patients with endocrinopathies and apparently healthy persons. They are mainly of the IgG and IgA classes. While the diagnostic sensitivity for PA is very high, i.e. 80 to 90%, the specificity for PA is limited due to the large number of associated disease states. The prevalence in chronic atrophic gastritis amounts to 100%. This disease can be found endoscopically in all patients with parietal cell antibodies.

While the prevalence of parietal cell antibodies decreases in the course of PA, many patients develop antibodies against IF only much later.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Stomach	Standard method for the detection of antibodies against parietal cells	FA 1360-####	146
	Stomach, intrinsic factor BIOCHIPs	The substrate combination of primate stomach and intrinsic factor BIOCHIPs in IIFT facilitates diagnosis of pernicious anaemia	FA 1362-####-1	146
ELISA	Parietal cells (PCA)	Semiquantitative or quantitative determination of antibodies against the target antigen H^+/K^+-ATPase	EA 1361-9601 G	133
	Intrinsic factor	Specific detection of antibodies against intrinsic factor	EA 1362-9601 G	133

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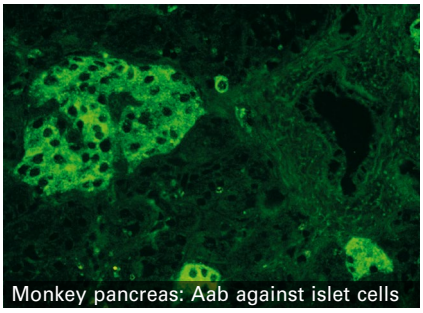
Endocrinology

Diabetes · Thyroid diseases

For more information on this subject scan the QR code or enter the Quick Link code q012 at www.euroimmun.com

Diabetes

Clinical information: Type 1 diabetes mellitus (insulin-dependent diabetes mellitus, IDDM) is the result of T-cell mediated destruction of the beta cells in genetically predisposed persons. In the course of the autoimmune reaction, autoantibodies against various islet cell antigens are formed at a very early stage. The determination of autoantibodies against glutamic acid decarboxylase (GAD), tyrosine phosphatase (IA2), zink transporter 8 (ZnT8), insulin and cytoplasmic islet cell components has achieved great significance for the diagnosis of IDDM and for disease prediction in first-degree relatives of diabetics. One or several of these autoantibodies are detectable in almost all patients at the time of diagnosis of IDDM.


Monkey pancreas: Aab against islet cells

Diagnostics: Autoantibodies against pancreas islet cells (ICA) can be detected in 80 to 90 % of patients with new-onset diabetes using indirect immunofluorescence. Characterised target antigens of ICA are GAD, IA2 and ZnT8. Antibodies against GAD are found in IDDM patients with a prevalence of 60 to 80 %. The prevalence of autoantibodies against IA2 in IDDM is 50 to 80 %, whereby they are more frequently detected the younger the patients are. The prevalence of autoantibodies against insulin is also age dependent. In patients under 5 years of age the prevalence amounts to over 90 %, while in 12 year olds it decreases to 40 %. Anti-insulin antibodies are therefore of great relevance in paediatrics. Insulin antibodies can currently only be detected with sufficient sensitivity using RIA.

The dectection of antibodies against ZnT8 presents a good alternative to the Anti-Insulin RIA. In paediatric patients, anti-ZnT8 antibodies have a prevalence of approximately 70 % at the disease start and can indicate the shift into the insulin-dependent stage.

Autoantibodies associated with IDDM mostly appear before the first clinical symptoms of the disease and are considered as markers of the prediagnostic phase. To achieve a reliable assessment of the risk of diabetes in an individual case, multiple relevant autoantibodies should always be tested in parallel. In this way the diagnostic sensitivity and specificity for the prediction of IDDM can be significantly increased.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Pancreas	Detection of autoantibodies against islet cells (ICA)	FA 1020-#### FA 1020-####-1	138
ELISA	Glutamic acid decarboxylase (GAD)	Solid-phase test systems for non-radioactive, monospecific detection of autoantibodies against the biochemically characterised antigens GAD, IA2 and ZnT8	EA 1022-9601 G	133
	Tyrosine phosphatase (IA2)		EA 1023-9601 G	133
	Zinc transporter 8 (ZnT8)		EA 1027-9601	133
	GAD/IA2 pool		EA 1022-9601-1 G	133
RIA	Insulin	Liquid-phase test systems for radioactive, monospecific detection of autoantibodies against the biochemically characterised insulin antigen	RA 1024-####	137

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Endocrinology

Diabetes · Thyroid diseases

For more information on this subject scan the QR code or enter the Quick Link code q038 at www.euroimmun.com

Thyroid diseases

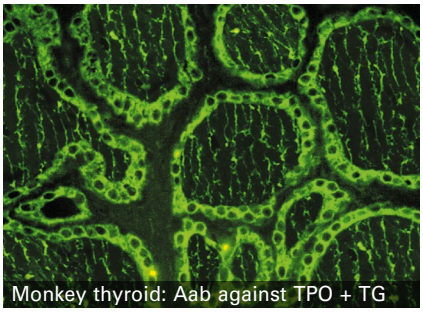
Clinical information: The hormones FT3, FT4, calcitonin and TSH (thyroid stimulating hormone = thyrotropin) are closely involved in the regulation of the human organism via the hypothalamus, pituitary gland and thyroid gland. The releasing and inhibition factors formed in the hypothalamus stimulate or inhibit the release of TSH, which is produced in the pituitary gland and induces the thyroid gland to release the thyroid hormones T3 (triiodothyronine) and T4 (tetraiodothyronine = thyroxine). The free thyroid hormones FT3 and FT4 belong to the vitally important hormones that regulate the metabolism of almost all organs.

Autoimmune thyreopathies are chronic inflammatory thyroid diseases that are caused by disregulation of specific immune defences (B cells and T cells). During the autoimmune process antibodies against one or more of the three autoantigens of the thyroid are formed: thyroid peroxidase (TPO), thyroglobulin (TG) and TSH receptor (TR). **Graves' disease** is one of the most common autoimmune diseases in people and the most frequent cause of primary thyroid hyperfunction. Alongside symptoms of hyperthyroidism, further symptoms such as struma, exophthalmus and tachycardia (Merseburg triad) occur. **Hashimoto's thyroiditis** is a chronic thyroiditis with progressive destruction of the thyroid tissue by T-lymphocytes. So far, Hashimoto's thyroiditis cannot be cured; however, the thyroid hypofunction must be treated.

Diagnostics: The determination of TSH, FT3 and FT4 is part of basic thyroid diagnostics. Increased T3 and T4 levels and a low TSH level are in general an indication of a hyperthyroid functional disorder (hyperthyrosis), whereas low levels of T3 and T4 hormones in serum are associated with a hypothyroid functional disorder (hypothyrosis).

In suspected Graves' disease the first-line test is antibodies against TSH receptors (TRAb), which occur with a prevalence of 90 to 100 %. The detection of antibodies against TPO can support the diagnosis.

In Hashimoto's thyroiditis serological antibodies against TPO are detectable with a prevalence of up to 90 %, while antibodies against TG are occur in 60 to 70 % of cases.


Monkey thyroid: Aab against TPO + TG

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Thyroid gland, TG BIOCHIP	Detection of antibodies against TPO and TG	FA 1010-####-3	138 138
ELISA	TSH receptor	Non-radioactive test systems of 2nd and 3rd generation for the specific detection of TRAb in Graves' disease	EA 1015-9601 G EA 1015-9601-1 G	133 133
	Thyroglobulin (TG)	Non-radioactive test systems for diagnosis of Graves' disease and Hashimoto's thyroiditis	EA 1013-9601 G	133
	Thyroid peroxidase (TPO)		EA 1012-9601 G	133
RIA	TSH receptor	Radioactive test systems of the 2nd generation for the specific detection of TRAb in Graves' disease	RA 1015-10001-1	137
	Thyroglobulin (TG)	Radioactive test systems for diagnosis of Graves' disease and Hashimoto's thyroiditis	RA 1013-10001-#	137
	Thyroid peroxidase (TPO)		RA 1012-#####-#	137
	Thyrotropin (TSH)	Test systems for basic evaluation of thyroid gland function	RD 1018-10001	137
	Free triiodothyronine (FT3)		RD 1016-10001	137
	Free thyroxine (FT4)		RD 1017-10001	137

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Neurology

PNS · Autoimmune encephalitis · Other

For more information on this subject scan the QR code or enter the Quick Link code q033 at www.euroimmun.com

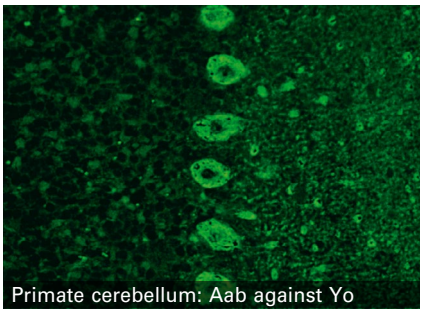
Paraneoplastic neurological syndromes

Clinical information: Paraneoplastic neurological syndromes (PNS) are diseases of the central and peripheral nervous system that occur in direct relation to tumour development. However, these are not caused directly by the tumour, by its metastases or by any side-effects from therapy using cytostatic drugs or radiation treatment. PNS occur in approximately 15% of malignant diseases, particularly in lung tumours.

Depending on the type of tumour, tumour cells express antigens, e.g. amphiphysin, CV2/CRMP5, PNMA2 (Ma2/Ta), Ri, Yo, Hu, ZIC4 or Tr (DNER) which can induce the formation of specific autoantibodies. These autoantibodies bind to the respective antigens localised in the nervous tissue and can thus cause neurological disorders.

In the literature two types of nomenclature are used for PNS-specific autoantibodies. One is based on the first two letters of the index patient's name (e.g. Hu for Hull, Yo for Young, Ma for Margret), the other on the initial letters of the immunohistochemical staining (ANNA = anti-nuclear neuronal antibodies). We use the nomenclature of Posner (anti-Hu, -Yo, -Ma etc.), since this is antigen-based and independent of the test procedure.

Diagnostics: The European network for paraneoplastic neurological diseases (PNS Euronetwork) has published diagnostic criteria. These lead to two levels of diagnostic certitude, namely a definitive or a possible paraneoplastic syndrome. In serological diagnostics, autoantibodies in PNS should always be determined using two unrelated methods. Various line blots (EUROLINE) are available in addition to indirect immunofluorescence tests with special BIOCHIP Mosaics for neurology. Thus, test results can be compared and, if necessary, confirmed. Results should only be used for diagnosis when both test results are congruent in qualitative determination and are in line with the clinical symptoms.


Primate cerebellum: Aab against Yo

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Cerebellum	Basic substrate for autoantibody detection in PNS	FA 1111-####	139
	Cerebellum, nerve, intestinal tissue	Combination of tissue substrates for further diagnostics and antibody differentiation in neurological diseases	FA 1111-####-1	139
	Cerebellum, nerve, intestinal tissue, pancreas	Neurology Mosaic with pancreas tissue for supplementary detection of antibodies against GAD	FA 1111-####-8	139
Blot	Amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu	Secondary test for the detection of the six classic paraneoplastic antibodies	DL 1111-1601-2 G	131
	Amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu, recoverin, SOX1, titin, GAD65, Zic4, Tr (DNER)	Test system for classic paraneoplastic antibodies supplemented with the antigens recoverin, SOX-1, titin, GAD65, Zic4 and Tr (DNER)	DL 1111-1601-7 G	131

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Neurology

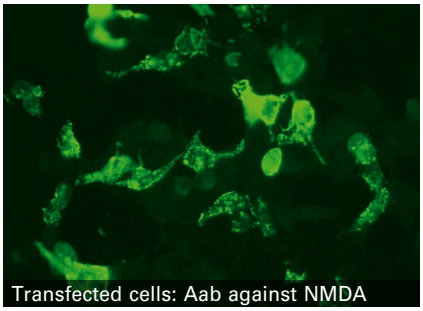
PNS · Autoimmune encephalitis · Other

For more information on this subject scan the QR code or enter the Quick Link code q006 at www.euroimmun.com

Autoimmune encephalitis

Clinical information: Patients with autoimmune encephalopathies exhibit autoantibodies against neuronal cell surface antigens. The antibodies are directed against glutamate receptors (type NMDA or type AMPA), GABAB receptors, DPPX, voltage-gated potassium channels (VGKC) or VGKC-associated proteins (LGI1, CASPR2, TAG-1/contactin-2). Since these antigens play a direct or indirect role in synaptic signal transduction, the associated autoimmunities manifest with seizures and neuropsychiatric symptoms. The resulting conditions include special forms of autoimmune limbic encephalitis, neuromyotonia or Morvan's syndrome. These severe, potentially lethal syndromes can have a non-paraneoplastic or paraneoplastic aetiology. The frequency of underlying tumours ranges from 10 to 70%, depending on the type of antibody. The antibodies most likely play a causal role in the pathogenesis. Since appropriate therapy (immunomodulatory intervention, tumour resection) results in considerable regression of symptoms in most patients, early diagnosis is important for a favourable prognosis.

Diagnostics: The diagnosis of autoimmune encephalitides is generally based on a combination of the characteristic clinical picture, supporting findings from brain MRT, EEG and CSF analysis if necessary, and antibody determination in serum/CSF. Monospecific recombinant assays are the method of choice for serological diagnostics and can be combined with conventional immunohistochemical detection procedures. The following conditions must be excluded by differential diagnostics: infectious encephalitides (especially HSV), other autoimmune aetiologies (e.g. limbic encephalitis with autoantibodies against Hu, Ma2, CV2, amphiphysin) and clinically similar diseases of the central and/or peripheral nervous system. A diagnostic discrimination from atypical encephalitides should also be taken into consideration. It should be taken into account that overlap syndromes and combinations of different syndromes can also occur. When a positive serological result is obtained, a comprehensive tumour investigation should be undertaken.


Transfected cells: Aab against NMDA

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Glutamate receptors (type NMDA) expressed in a human cell line	Highly sensitive mono-specific detection of NMDAR antibodies using a recombinant cell line	FA 112d-####-51	141
	GABA B receptors expressed in a human cell line	Detection of antibodies against GABA B receptors in patients with autoimmune encephalopathies	FA 112l-####-50	140
	Hippocampus, cerebellum, glutamate receptors (type NMDA) expressed in a human cell line, control-transfected cells	Combination of tissue sections for screening of antibodies against cell-surface antigens and NMDAR-transfected cells for monospecific detection of reactivity against NMDAR	FA 111m-####-3	140
	Glutamate receptors (type NMDA), glutamate receptors (type AMPA), CASPR2, LGI1, GABA B receptors, DPPX, expressed in a human cell line	BIOCHIP Mosaic for detection of differentially diagnostically relevant antibodies in autoimmune encephalopathies	FA 112d-####-6	141
	IgLON5 expressed in a human cell line	Detection of antibodies against IgLON5 in patients with atypical encephalitis and accompanying dementia	FA 1151-####-50	141
	LGI1, CASPR2 expressed in a human cell line	Detection of antibodies against LGI1 and CASPR2, the main target antigens in patients with VGKC-antibody-associated syndromes	FA 1439-####-1	147

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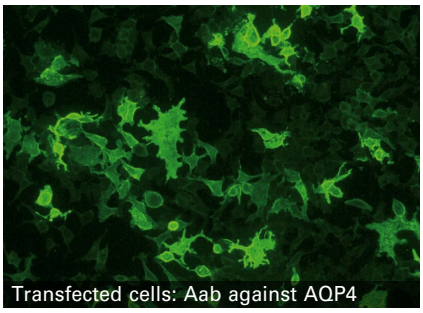
Neurology

For more information on this subject scan the QR code or enter the Quick Link code q047 at www.euroimmun.com

Other diseases of the central and peripheral nervous system

Stiff-person syndrome: Stiff-person syndrome (SPS) is a disease of the CNS, which manifests with progressive muscle stiffness, typically in the trunk and extremities, as well as spontaneous or triggered spasms. Up to 80 % of patients show a high serum titer and intrathecal synthesis of anti-glutamic acid decarboxylase (GAD) antibodies. Around 5 % of all SPS cases are paraneoplastic and usually associated with antibodies against amphiphysin.

Diseases with demyelination: These diseases are characterised by progressive destruction of the myelin sheath. The demyelinating foci are predominantly in the brain and spinal cord. The loss of myelin impairs neuronal signal transduction, leading to motor, visual and sensory disorders. These encompass neuromyelitis optica spectrum disorders (NMOSD), which affect in particular the optical nerve and the spinal cord. NMOSD is associated with pathogenic antibodies against the CNS water-channel protein aquaporin-4 (AQP-4). Antibodies against myelin oligodendrocyte glycoprotein (MOG) occur in around 20 % of AQP-4-negative NMOSD patients. Antibodies against MOG also occur in other demyelinating diseases of the CNS, e.g. acute demyelinating encephalomyelitis (ADEM). The determination of anti-AQP-4 and anti-MOG antibodies enables early delimitation from multiple sclerosis, the most important differential diagnosis.


Transfected cells: Aab against AQP4

Autoimmune neuropathies: The peripheral nervous system can also be the target of autoaggression, affecting nerves, ganglia or myelin sheaths. Manifestations encompass motor paralysis, sensitivity disorders or dysautonomy. Autoantibodies against cell-membrane glycolipids or glycoproteins of neurons or glial cells are diagnostically definitive for many forms of peripheral neuropathy. Antibodies against gangliosides are characteristic markers for Guillain-Barré syndrome and its variants, for example, acute motor axonal neuropathy (GM1/ GM1b/ GD1a/ GalNac-GD1a IgG), Miller-Fisher syndrome (GQ1b/GT1a IgG), and multifocal motor neuropathy (GM1/GD1b/ asialo-GM1 IgM). Further, IgM antibodies against myelin-associated glycoprotein (MAG) typically occur in demyelinating polyneuropathy with monoclonal IgM gammopathy.

Myasthenia syndrome: In myasthenia gravis (MG) and Lambert-Eaton myasthenic syndrome (LEMS) the dominant symptom is muscle weakness, which is mainly due to antibody-mediated transmission disorders of the neuromuscular synapses. Antibodies against nicotinic acetylcholine receptors (AChR) are detected in 85 to 90 % of patients with generalised MG. Additional reactivities against antigens of the striated muscle (e.g. titin) often occur in connection with neoplasia (thymoma in 15 % of all myasthenia cases) and a severe disease course.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Aquaporin-4 (AQP-4) expressed in a human cell line	Substrate for the most sensitive detection of antibodies against AQP-4	FA 1128-####-50	140
	Cerebellum, cerebrum, optical nerve, AQP-4 expressed in a human cell line	Combination of AQP-4-transfected cells and CNS tissue sections and for the detection of further antibodies against neuronal antigens	FA 1111-####-17	140
	AQP-4, myelin-oligodendrocyte glycoprotein (MOG) expressed in a human cell line	Highly specific detection of antibodies against AQP-4 and MOG	FA 1128-1	141
	Glutamic acid decarboxylase (GAD) 65 kDA expressed in a human cell line	Monospecific detection of antibodies against GAD for diagnosis of stiff-person syndrome	FA 1022-####-50	138
	Nerve (N. suralis)	Substrate for the detection of antibodies against medullated nerves (myelin, MAG)	FA 1120-####	140
Blot	GM1, GM2, GM3, GD1a, GD1b, GT1b, GQ1b	EUROLINE for the determination of antibodies against gangliosides for the diagnosis of peripheral neuropathies	DL 1130-1601-2 G/M	127
ELISA	Acetylcholine receptor (AChR)	Sensitive and specific test for the serological diagnosis of MG	EA 1435-9601 G	131
RIA	Acetylcholine receptor (AChR)	Standard method in routine analysis for the serological diagnosis of MG	RA 1435-#####-1	137

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Nephrology

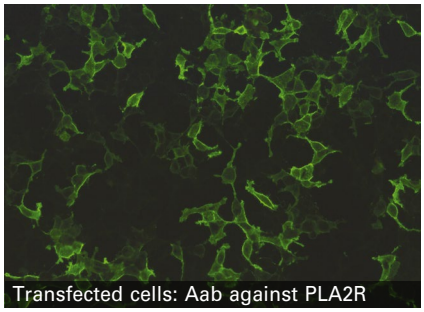
Primary MN · Goodpasture's syndrome

For more information on this subject scan the QR code or enter the Quick Link code q036 at www.euroimmun.com

Primary membranous nephropathy

Clinical information: Primary membranous nephropathy (pMN), also described as primary membranous glomerulonephritis, is a chronic inflammatory disease of the glomeruli which is accompanied by a progressive impairment of the kidney function. The underlying autoimmune mechanism is based on the reaction of autoantibodies directed against the glycoproteins phospholipase A2 receptor (PLA2R) and thrombospondin type-1 domain-containing protein 7A (THSD7A). These transmembrane proteins are expressed on the surface of podocytes in human glomeruli. As a result of the binding of antibodies, the podocytes are damaged and protein enters the primary urine (proteinuria). pMN is the most frequent kidney disorder with nephrotic syndrome in adults. The disease is prevalent in all ethnic groups and genders, with men over 40 years old with white skin colour being more frequently affected. In young women with suspected pMN, lupus nephritis should be considered. Primary MN occurs very rarely in children. The primary form of MN should be discriminated from the secondary form, which can occur in infections, in drug therapy or abuse or intake of toxins, in collagenoses and other autoimmune diseases and in tumours, and which improves with treatment of the underlying disease. The treatment of pMN improves prognosis, particularly with respect to nephrotic syndrome and hypertonicity.

Diagnostics: Diagnosis of pMN is made by kidney puncture, histological examination and electron microscopy of the kidney tissue. Characteristic here is the deposition of immunocomplexes on the outside of the glomerular basement membrane. Serological diagnosis of pMN, however, is less time-consuming and less stressful for the patient. The identification and characterisation of PLA2R and THSD7A as target antigens of circulating antibodies in pMN has proven to be of major importance for non-invasive diagnostics. Autoantibodies of class IgG against PLA2R are highly specific and can be found in the serum of up to 80 % of patients with pMN. In contrast they are not exhibited by healthy blood donors or patients with secondary MN. In healthy persons and patients with secondary MN, these autoantibodies are not present. Reported prevalences for autoantibodies against THSD7A range up to 10 %. Even though both antibodies can occur in parallel, anti-THSD7A antibodies are mainly found in anti-PLA2R-seronegative pMN patients. As a supplement to anti-PLA2R antibodies, anti-THSD7A antibodies are therefore another marker in the serological diagnosis of pMN. Due to their high specificity, they are equally suited for differentiation from secondary MN as anti-PLA2R antibodies.


Transfected cells: Aab against PLA2R

The two methods IIFT and ELISA are available for the determination of autoantibodies against PLA2R. The IIFT allows a qualitiative to semiquantitative determination of human IgG autoantibodies against PLA2R, whilst the ELISA allows reliable quantification. The anti-PLA2R titer helps to assess the success of therapeutic measures. The serological finding with increase, decrease or disappearance of the antibody titer precedes the clinical image. Thus, the determination of the autoantibody titer has a high predictive value with respect to clinical remission or relapse and estimation of the risk of pMN reoccurence after kidney transplantation.

The Anti-THSD7A IIFT is an ideal supplementary test to the anti-PLA2R test systems. The serological detection rate is increased with parallel determination or a two-step screening strategy in which patients with a seronegative anti-PLA2R result are additionally investigated for anti-THSD7A antibodies.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Phospholipase A2 receptors (PLA2R) expressed in a human cell line	Transfected cells for qualitative and semiquantitative detection of anti-PLA2R and anti-THSD7A antibodies	FA 1254-####-50	145
	Thrombospondin type-1 domain-containing protein 7A (THSD7A) expressed in a human cell line		FA 1254-####-51	145
	Membranous Nephropathy Mosaic 1 (PLA2R and THSD7A)		FA 1254-####-1	144
ELISA	Phospholipase A2 receptors (PLA2R)	ELISA with purified human recombinant receptor for qualitative and quantitative detection of anti-PLA2R antibodies	EA 1254-9601 G	133

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q088 at www.euroimmun.com

Nephrology

Primary MN · Goodpasture's syndrome

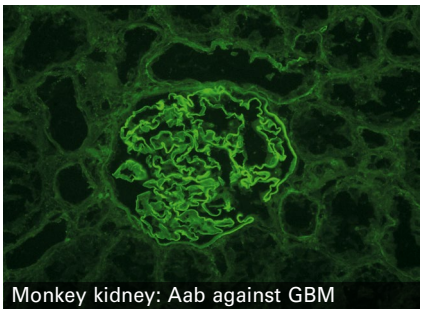
For more information on this subject scan the QR code or enter the Quick Link code q129 at www.euroimmun.com

Goodpasture's syndrome

Clinical information: Glomerulonephritis (actually glomerulitis) is an inflammation of the glomeruli (kidney filters, part of the 1.2 million nephrons of each kidney). Chronic glomerulonephritis, which eventually leads to glomerulosclerosis, represents the main cause of dialysis-dependent kidney failure. In autoimmune glomerulonephritis autoantibodies are directed against the basement membrane of the kidney glomeruli (GBM antigens). Anti-GBM glomerulonephritis accounts for 0.5 to 2% of all glomerulonephritides.

Goodpasture's syndrome (pulmonary-renal syndrome) is a special form of autoimmune glomerulonephritis named after the US American pathologist Ernest William Goodpasture (1886-1960), who in 1919 described the combination of glomerulonephritis with pulmonary haemorrhage. This rare syndrome affects men six times more often than women, and predominantly those in young adulthood. It is clinically characterised by the combination of rapid progressive anti-basement membrane glomerulonephritis and pulmonary haemosiderosis, whereby pulmonary haemorrhage often occurs as the first sign.

Diagnostics: The primary target antigen of all anti-GBM glomerulonephritides, including the classic Goodpasture's syndrome, is the NC1 region of the alpha-3 chain of the network-structured type IV collagen of the basement membrane lamina densa. These autoantibodies, which can be detected qualitatively or quantitatively in IIFT and quantitatively in the Anti-GBM ELISA, can be directed against the alveolar basement membrane or against the glomerular basement membrane. In cases without lung involvement GBM antibodies are detected in the serum or plasma of over 60% of patients, in cases with lung involvement in over 90%. They are predominantly of class IgG, more rarely of class IgA and IgM. Clinical progression of the disease correlates with antibody concentration. High-titer circulating GBM antibodies indicate an unfavourable progression. With a negative serum result and continuing suspicion of anti-GBM glomerulonephritis, a kidney biopsy should be performed.


Monkey kidney: Aab against GBM

Patients with mit Anti-GBM glomerulonephritides are often also ANCA positive (>35%). Positive results can indicate rapid-progressive glomerulonephritis or GPA. Therefore, parallel analysis of ANCA and anti-GBM antibodies is recommended in patients with ANCA-associated vasculitis (AAV) with renal involvement.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Kidney	Standard substrate for the detection of anti-GBM autoantibodies	FA 1250-####	144
	Kidney, GBM BIOCHIPs	Anti-GBM standard substrate supplemented by a EUROPLUS BIOCHIP with purified GBM antigen	FA 1250-####-1	144
	Granulocytes (EOH)/ HEp-2 + granulocytes (EOH)/ granulocytes (HCHO)/ PR3/MPO/GBM/ BIOCHIPs	ANCA screening and confirmation on monospecific EUROPLUS antigen dots (incl. GBM) in one test system	FA 1201-####-25	143
ELISA	Glomerular basement membrane (GBM)	ELISA with purified alpha-3 chain of type IV collagen for qualitative and quantitative detection of anti-GBM antibodies	EA 1251-9601 G	133
Blot	MPO, PR3, GBM	Immunoblot for multiplex detection of ANCA and anti-GBM antibodies	DL 1200-####-3 G	131

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q068 at www.euroimmun.com

Dermatology

Autoimmune dermatoses

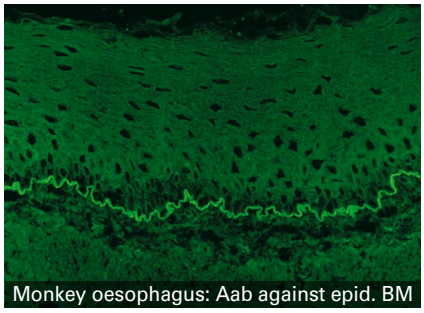
For more information on this subject scan the QR code or enter the Quick Link code q005 at www.euroimmun.com

Autoimmune dermatoses

Clinical information: Bullous autoimmune dermatoses are rare, blister-forming diseases of the outer skin and the adjacent mucous membranes. They are characterised by the formation of autoantibodies against structural proteins of the skin. These structural proteins establish the cell-to-cell contact in keratinocytes within the epidermis and the adhesion of the epidermis to the dermis. Bullous autoimmune dermatoses are divided into four main groups based on their target antigens and the localisation of the blisters:

– Pemphigus diseases: desmoglein 1 (Dsg1), desmoglein 3 (Dsg3), different plakins (mostly envoplakin)
– Pemphigoid diseases: BP180, BP230, laminin 332
– Epidermolysis bullosa acquisita: collagen type VII
– Dermatitis herpetiformis: endomysium (tissue/epidermal transglutaminase), deamidated gliadin peptides (GAF-3X)

Diagnostics: A conclusive diagnosis of blister-forming autoimmune dermatoses requires the detection of both tissue-bound autoantibodies by direct immunofluorescence and circulating autoantibodies. The circulating specific autoantibodies against epidermal antigens (prickle cell desmosomes and epidermal basement membrane) in patient serum are detected using the indirect immunofluorescence test (IIFT) with tissue sections of primary oesophagus (or tongue). For further differentiation of autoantibodies against basement membrane structures, tissue sections of primate salt-split skin are used. Final diagnosis is based on a combination of the clinical picture with the detection of autoantibodies against the individual target antigens using IIFT, monospecific ELISA or immunoblot analyses.


Monkey oesophagus: Aab against epid. BM

Patients who suffer from bullous pemphigoid (BP) exhibit autoantibodies against BP180 and frequently also against BP230. The serum level of autoantibodies against BP180 correlates with the disease activity of BP, the serum level of autoantibodies against BP230 with the duration of the disease. Hence, the Anti-BP180-NC16A-4X ELISA (IgG) and the Anti-BP230-CF ELISA (IgG) are not only suited to reliably serologically identifying BP, but also to monitoring the activity of the disease before and during treatment and assessing the disease duration. Autoantibodies against desmoglein 1 and 3 are markers for pemphigus diseases. IIFT has proven valuable for detecting circulating autoantibodies in pemphigus. ELISA using recombinant desmoglein 1 and 3 offer the same sensitivity and specificity as IIFT. The anti-Dsg1 and -Dsg3 antibody levels measured correlate to a large extend with the severity and activity of the disease and the therapy success. The determination of autoantibodies against envoplakin contributes to diagnosis of PNP as well as differential diagnostic clarification. The determination of autoantibodies against collagen type VII confirms the diagnosis of EBA and enables the delimitation from other bullous autoimmune dermatoses.

Product overview

Method	Substrate	Application	Order number	Page
IIFT	Oesophagus	Substrate for detection of circulating autoantibodies in bullous autoimmune dermatoses	FA 1501-####	148
	Oesophagus, salt-split skin	Salt-split skin enables autoantibody specification in pemphigoid diseases	FA 1501-####-20	148
	Oesophagus, salt-split skin, BP230gC-transfected cells, desmoglein-1-transfected cells, desmoglein-3-transfected cells, BP180-NC16A-4X BIOCHIP	The combination of all substrates enables a fast and comprehensive investigation in one step	FA 1501-####-7	148
	Type VII collagen NC1 expressed in a human cell line	Monospecific detection of antibodies against type VII collagen for diagnosis of EBA	FA 1947-####-50	156
	Bladder mucosa	Substrate for detection of antibodies against plakins	FA 1507-####	148
ELISA	Desmoglein 1	Monospecific detection of Ab against Dsg1	EA 1495-4801 G	134
	Desmoglein 3	Monospecific detection of Ab against Dsg3	EA 1496-4801 G	134
	BP180-NC16A-4X	ELISA for the most important antibody parameter in BP	EA 1502-4801-2 G	134
	BP230-CF	Supplementary serological parameter for diagnosis of BP	EA 1502-4801-1 G	134
	Envoplakin	Monospecific detection of Ab against envoplakin	EA 1491-4801 G	134
	Collagen type VII	Monospecific detection of Ab against collagen type VII	EA 1947-4801 G	135
	Dermatology Profile (separate: BP180-NC16A-4X, BP230-CF, desmoglein 1, desmoglein 3, envoplakin, collagen type VII)	Simultaneous detection of the six most important Ab in one test	EA 1490-1208-1 G	133

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q054 at www.euroimmun.com

Products for autoimmune diagnostics

Format

- 1601: 16 single test strips
- 1208: 12 microplate strips with 8 wells each
- 9601: 96 individual break-apart wells (12 microplate strips, 8 wells each)
- 5001: 50 individual tubes
- 10001: 100 individual tubes
- 1003: 10 slides with 3 fields each
- 1005: 10 slides with 5 fields each
- 2005: 20 slides with 5 fields each
- 1010: 10 slides with 10 fields each
- 1050: 10 slides with 50 fields each
- 1001: 10 slides to be incubated with 1 patient serum each
- 1002: 10 slides to be incubated with 2 patient sera each

FA 1914 - 1005 -1 A

Product code

Immunoglobulin class

- A: IgA
- G: IgG
- M: IgM
- O: IgGM
- P: Polyvalent (IgAGM)

Product classification

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the serological investigation. For diagnostics in indirect immunofluorescence, for example, these include slides, FITC-labelled antibodies against human immunoglobulin, positive and negative control sera (not available for some products) as well as embedding medium, cover glasses, sachets of PBS and Tween 20.

Substrates consisting of cell cultures and tissues which do not appear in this catalogue can be made to specification. In addition, BIOCHIP mosaics can be produced according to individual requirements. Apart from the customary package sizes and slide formats, special sizes are available as well. Quotations can be provided upon request.

Controls for EUROIMMUN IIFT: Organ-Specific Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CA 1000-0101 CA 1000-0102 CA 1000-0105	autoantibody-free control (aab negative)	IgA, IgG, IgM	0.1 ml 0.25 ml 0.5 ml
CA 1011-0101 CA 1011-0102	antibodies against thyroid microsomes (MAb control)	IgG	0.1 ml 0.25 ml
CA 1013-0101	antibodies against thyroglobulin (TAb control)	IgG	0.1 ml
CA 1021-0101 CA 1021-0102 CA 1021-0105 CA 1021-0110	antibodies against pancreas islets (islet cell ab control)	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml
CA 1021-0101-1	antibodies against pancreas islets control with JDF units	IgG	0.1 ml
CA 1022-0101 CA 1022-0102	antibodies against glutamic acid decarboxylase (GAD ab control)	IgG	0.1 ml 0.25 ml
CA 1051-0101 CA 1051-0102	antibodies against adrenal cortex (adrenal cortex ab control)	IgG	0.1 ml 0.25 ml
CA 1061-0101	antibodies against ovary: theca cells (ovary ab control)	IgG	0.1 ml
CA 1081-0101	antibodies against testis: Leydig cells (testis ab control)	IgG	0.1 ml
CA 1086-0101	antibodies against spermatozoa	IgG	0.1 ml
CA 1113-0101 CA 1113-0102	antibodies against Purkinje cell cytoplasm (Yo ab control)	IgG	0.1 ml 0.25 ml
CA 1115-0101	antibodies against neuronal nuclei: Ri antigen (Ri ab control)	IgG	0.1 ml
CA 1116-0101 CA 1116-0105	antibodies against neuronal nuclei: Hu antigen (Hu ab control)	IgG	0.1 ml 0.5 ml
CA 1121-0101 CA 1121-0105	antibodies against myelin	IgG	0.1 ml 0.5 ml
CA 1123-0101 M	antibodies against myelin-associated glycoprotein (MAG ab control)	IgM	0.1 ml
CA 1128-0101 CA 1128-0105	antibodies against aquaporin-4 (neuromyelitis optica control)	IgG	0.1 ml 0.5 ml
CA 112d-0101 CA 112d-0105	antibodies against glutamate receptor (type NMDA)	IgG	0.1 ml 0.5 ml
CA 112l-0101	antibodies against GABA B receptor	IgG	0.1 ml
CA 112m-0101 CA 112m-0105	antibodies against dipeptidyl aminopeptidase-like protein 6 (DPPX ab control)	IgG	0.1 ml 0.5 ml
CA 1151-0101 CA 1151-0102	antibodies against IgLON family member 5 (IgLON5)	IgG	0.1 ml 0.25 ml
CA 1156-0101	antibodies against myelin oligodendrocytes glycoprotein (MOG ab control)	IgG	0.1 ml
CA 1200-0101 CA 1200-0102 CA 1200-0105 CA 1200-0110	antibodies against granulocyte cytoplasm, cytoplasmic pattern (cANCA control, PR3 ab control)	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml

Controls for EUROIMMUN IIFT: Organ-Specific Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CA 1200-1060-1	antibodies against granulocyte cytoplasm, aliquots from positive control for ANCA diagnostics (10 different fluorescence patterns)	IgG	10 x 60 µl, ready for use
CA 1200-0101-3 CA 1200-0105-3 CA 1200-0110-3	antibodies against granulocyte cytoplasm, cytoplasmic pattern (cANCA control, PR3 ab control), control serum with indication of titer	IgG	0.1 ml 0.5 ml 1.0 ml
CA 1211-0101 CA 1211-0102 CA 1211-0105 CA 1211-0110	antibodies against granulocyte cytoplasm, perinuclear pattern (pANCA control, MPO ab control)	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml
CA 1211-0101-3 CA 1211-0102-3 CA 1211-0105-3 CA 1211-0110-3	antibodies against granulocyte cytoplasm, perinuclear pattern (pANCA control, MPO ab control) control serum with indication of titer	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml
CA 1215-0101	antibodies against DNA-bound lactoferrin (pANCA) (LFS ab control)	IgG	0.1 ml
CA 1218-0105	antibodies against granulocyte cytoplasm, perinuclear pattern (xANCA control)	IgG	0.5 ml
CA 1230-0101 Z CA 1230-0102 Z	thrombocytes negative control	IgA, IgG, IgM	0.1 ml 0.25 ml
CA 1251-0101 CA 1251-0102	antibodies against renal glomeruli (Goodpasture syndrome; GBM ab control)	IgG	0.1 ml 0.25 ml
CA 1254-0101 CA 1254-0105	antibodies against phospholipase A2 receptor (PLA2R ab control)	IgG	0.1 ml 0.5 ml
CA 1254-0101-1	antibodies against thrombospondin type-1 domain-containing protein 7A (THSD7A ab control)	IgG	0.1 ml
CA 1302-0101	antibodies against soluble liver antigen/ liver-pancreas antigen (SLA/LP ab control)	IgG	0.1 ml
CA 1320-0101 CA 1320-0102 CA 1320-0105	antibodies against liver-kidney microsomes (LKM ab control)	IgG	0.1 ml 0.25 ml 0.5 ml
CA 1361-0101 CA 1361-0102 CA 1361-0105	antibodies against parietal cells (PCA control)	IgG	0.1 ml 0.25 ml 0.5 ml
CA 1363-0101 CA 1363-0102	antibodies against parietal cells + intrinsic factor (PCA + intrinsic factor ab control)	IgG	0.1 ml 0.25 ml
CA 1381-0101 A	antibodies against intestinal goblet cells (ulcerative colitis; UC IgA control)	IgA	0.1 ml
CA 1381-0101 G	antibodies against intestinal goblet cells (ulcerative colitis; UC IgG control)	IgG	0.1 ml
CA 1391-0101 CA 1391-0102	antibodies against pancreas acini (CUZD1 control; associated with Crohn's disease)	IgG	0.1 ml 0.25 ml
CA 1392-0101 CA 1392-0102	antibodies against pancreas secretion (GP2 control; associated with Crohn's disease)	IgG	0.1 ml 0.25 ml
CA 1431-0101 CA 1431-0102	antibodies against striated muscles (myasthenia gravis control)	IgG	0.1 ml 0.25 ml
CA 1439-0101-1 CA 1439-0102-1	antibodies against leucine-rich glioma-inactivated protein 1 (LGI1 ab control)	IgG	0.1 ml 0.25 ml

Controls for EUROIMMUN IIFT: Organ-Specific Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CA 1439-0101-2 CA 1439-0105-2	antibodies against contactin-associated protein 2 (CASPR2 ab control)	IgG	0.1 ml 0.5 ml
CA 1461-0101 CA 1461-0102	antibodies against striation (heart 1 ab control)	IgG	0.1 ml 0.25 ml
CA 1495-0101	antibodies against desmoglein 1 (pemphigus-associated)	IgG	0.1 ml
CA 1496-0101	antibodies against desmoglein 3 (pemphigus-associated)	IgG	0.1 ml
CA 1501-0101 CA 1501-0102	antibodies against epidermis: desmosomes (pemphigus vulgaris control)	IgG	0.1 ml 0.25 ml
CA 1502-0101 CA 1502-0102	antibodies against epidermis: basement membrane (bullous pemphigoid control)	IgG	0.1 ml 0.25 ml
CA 1502-0101-1	antibodies against BP230 (associated with bullous pemphigoid)	IgG	0.1 ml
CA 1502-0101-2	antibodies against BP180 (associated with bullous pemphigoid)	IgG	0.1 ml
CA 1508-0101	antibodies against keratin (filaggrin ab control)	IgG	0.1 ml

Controls for EUROIMMUN IIFT: Systemic Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CA 1570-0101 CA 1570-0102 CA 1570-0105 CA 1570-0110	antibodies against cell nuclei (ANA control), homogeneous pattern	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml
CA 1570-0850-1	antibodies against cell nuclei (ANA control), homogeneous pattern, control serum with indication of titer, reference serum W 1064 (66/233)	IgG	8 aliquots, concentrate 50 µl
CA 1570-2060-2	antibodies against cell nuclei, aliquots from positive control for ANA diagnostics (20 different fluorescence patterns)	IgG	20 x 60 µl, ready for use
CA 1570-0101-3 CA 1570-0102-3 CA 1570-0105-3 CA 1570-0110-3	antibodies against cell nuclei (ANA control), homogeneous pattern, control serum with indication of titer	IgG	0.1 ml 0.25 ml 0.5 ml 1.0 ml
CA 1570-0102-4 CA 1570-0105-4 CA 1570-0110-4	antibodies against cell nuclei (ANA control), homogeneous pattern, for EUROPattern	IgG	0.25 ml 0.5 ml 1.0 ml
CA 1572-0101 CA 1572-0102 CA 1572-0105	antibodies against dsDNA (dsDNA ab control)	IgG	0.1 ml 0.25 ml 0.5 ml
CA 1572-0101-3 CA 1572-0102-3	antibodies against dsDNA (dsDNA ab control) control serum with indication of titer	IgG	0.1 ml 0.25 ml
CA 1580-0105	antibodies against cell nuclei (ANA control), nucleolar pattern	IgG	0.5ml
CA 1590-0105	antibodies against cell nuclei (ANA control), granular pattern	IgG	0.5ml
CA 1591-0102	antibodies against U1-nRNP	IgG	0.25 ml
CA 1593-0102	antibodies against Sm	IgG	0.25 ml
CA 1595-0102	antibodies against SS-A (Ro)	IgG	0.25 ml
CA 1597-0102	antibodies against SS-B (La)	IgG	0.25 ml
CA 1599-0102	antibodies against Scl-70	IgG	0.25 ml
CA 159z-0102	antibodies against cell nuclei (ANA control), pattern DFS70	IgG	0.25 ml
CA 1601-0102	antibodies against PCNA (cyclin I)	IgG	0.25 ml
CA 1602-0102	antibodies against mitosin (cyclin II)	IgG	0.25 ml
CA 1603-0102	antibodies against Sp100 (nuclear granula, nuclear dots; associated with PBC)	IgG	0.25 ml
CA 1605-0102	antibodies against Ku	IgG	0.25 ml
CA 1608-0102	antibodies against nuclear membrane	IgG	0.25 ml
CA 1611-0105	antibodies against cell nuclei (ANA control), pattern centromeres	IgG	0.5 ml
CA 1613-0102	antibodies against spindle fibers (MSA-2)	IgG	0.25 ml
CA 1622-0101 CA 1622-0102 CA 1622-0105 CA 1622-0110	antibodies against mitochondria (AMA M2 control; associated with PBC)	IgG	0.1 ml 0.25 ml 0.5 ml 1 ml

Controls for EUROIMMUN IIFT: Systemic Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CA 1622-0101-3 CA 1622-0102-3 CA 1622-0105-3	antibodies against mitochondria (AMA M2 control; associated with PBC), control serum with indication of titer	IgG	0.1 ml 0.25 ml 0.5 ml
CA 1641-0102	antibodies against ribosomal P-proteins	IgG	0.25 ml
CA 1642-0102	antibodies against Golgi apparatus	IgG	0.25 ml
CA 1651-0101 CA 1651-0102	antibodies against F-actin	IgG	0.1 ml 0.25 ml
CA 1652-0102	antibodies against vimentin	IgG	0.25 ml
CA 1661-0101	antibodies against histidyl-tRNA synthetase (Jo-1 ab control)	IgG	0.1 ml
CA 1710-0101 CA 1710-0102 CA 1710-0105	antibodies against smooth muscles (ASMA control)	IgG	0.1 ml 0.25 ml 0.5 ml
CA 1910-0101 A CA 1910-0102 A CA 1910-0105 A	antibodies against endomysium (EMA IgA control)	IgA	0.1 ml 0.25 ml 0.5 ml
CA 1910-0101 G CA 1910-0102 G	antibodies against endomysium (EMA IgG control)	IgG	0.1 ml 0.25 ml
CA 1913-0101 A CA 1913-0102 A	antibodies against endomysium plus gliadin (GAF-3X) (EMA plus gliadin GAF-3X IgA control)	IgA	0.1 ml 0.25 ml
CA 1913-0101 G CA 1913-0102 G	antibodies against endomysium plus gliadin (GAF-3X) (EMA plus gliadin GAF-3X IgG control)	IgG	0.1 ml 0.25 ml
CA 1947-0101	antibodies against collagen type VII (associated with epidermolysis bullosa aquisita)	IgG	0.1 ml
CA 1960-0101 G	antibodies against vascular endothelium	IgG	0.1 ml

Controls for EUROIMMUN IIFT: Determination of Further Antibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CV 1570-0101 G CV 1570-0102 G	test performance control (ANA homogeneous, IgG)	IgG	0.1 ml 0.25 ml
CV 1620-0101 G CV 1620-0102 G	test performance control (AMA, IgG)	IgG	0.1 ml 0.25 ml
CV 2841-0101 A CV 2841-0102 A	antibodies against Saccharomyces cerevisiae IgA positive control	IgA	0.1 ml 0.25 ml
CV 2841-0101 G CV 2841-0102 G	antibodies against Saccharomyces cerevisiae IgG positive control	IgG	0.1 ml 0.25 ml
CV 2841-0101 Z	Saccharomyces cerevisiae negative control	IgA, IgG, IgM	0.1 ml
CV 3011-0101 A CV 3011-0102 A	antibodies against gliadin (GAF-3X) (gliadin GAF-3X IgA control)	IgA	0.1 ml 0.25 ml
CV 3011-0101 G	antibodies against gliadin (GAF-3X) (gliadin GAF-3X IgG control)	IgG	0.1 ml

Further control sera for autoantibody diagnostics available upon request.

Controls for EUROLINE: Autoantibodies

Order No.	Control (Ready for Use)	Ig Class	Format
CL 1000-0101 Z	**autoantibody-free control (aab negative)**	IgA, IgG, IgM	0.1 ml
CL 1111-0107 G	**positive control serum: IgG, human, 100x concentrated for DL 1111-1 G, DL 1111-2 G, DL 1111-4 G and DL 1111-7 G**	IgG	0.1 ml for EUROBlotOne
CL 1111-0107-6 G	**positive control serum: IgG, human, 100x concentrated for DL 1111-6 G**	IgG	0.1 ml for EUROBlotOne
CL 1200-0107-2 G	**positive control serum: IgG, human, 100x concentrated for DL 1200-X G**	IgG	0.1 ml for EUROBlotOne
CL 1300-0107 G	**positive control serum: IgG, human, 100x concentrated for DL 1300-X G**	IgG	0.1 ml for EUROBlotOne
CL 1530-0107 G	**positive control serum: IgG, human, 100x concentrated for DL 1530-X G**	IgG	0.1 ml for EUROBlotOne
CL 1532-0107 G	**positive control serum: IgG, human, 100x concentrated for DL 1532 G**	IgG	0.1 ml for EUROBlotOne
CL 1590-0107 G	**positive control serum: IgG, human, 100x concentrated for DL 1590-X G**	IgG	0.1 ml for EUROBlotOne

EUROASSAY for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format Slides x Fields
DA 1200-1003-2 G **DA 1200-1005-2 G**	**myeloperoxidase (MPO)** **proteinase 3 (PR3)**	IgG	EUROASSAY strip with antigens	10 x 03 10 x 05
DA 1300-1003 G	**AMA M2, LKM-1, SLA/LP**	IgG	EUROASSAY strip with antigens	10 x 03
DA 1300-1003-2 G	**LKM-1, LC-1, SLA/LP**	IgG	EUROASSAY strip with antigens	10 x 03
DA 1300-1003-3 G	**Liver Profile** **AMA M2, LKM-1, LC-1, SLA/LP**	IgG	EUROASSAY strip with antigens	10 x 03
DA 1302-1003 G	**SLA/LP**	IgG	EUROASSAY strip with antigens	10 x 03
DA 1590-1003-1 G **DA 1590-1005-1 G**	**Anti-ENA ProfilePlus** **(nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1 separately)**	IgG	EUROASSAY strip with antigens	10 x 03 10 x 05
DA 1590-1003-2 G	**Anti-ENA ProfilePlus with AMA M2** **(nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, AMA M2 separately)**	IgG	EUROASSAY strip with antigens	10 x 03
DA 1590-1005-9 G	**Anti ENA Profile** **(nRNP/Sm, Sm, SS-A, SS-B separately)**	IgG	EUROASSAY strip with antigens	10 x 05
DA 1590-1005-20 G	**Anti-ENA ProfilePlus with histones** **(nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, histones separately)**	IgG	EUROASSAY strip with antigens	10 x 05
DA 1590-1003-29 G **DA 1590-1005-29 G**	**Anti-ENA ProfilePlus with Ro-52** **(nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, Ro-52 separately)**	IgG	EUROASSAY strip with antigens	10 x 03 10 x 05
DA 1590-1005-32 G	**Anti-ENA ProfilePlus with ribosomal P-proteins** **(nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, ribosomal P-proteins separately)**	IgG	EUROASSAY strip with antigens	10 x 05
DA 1620-1003-1 O	**AMA Profile** **(AMA M2, M4, M9 separately)**	IgGM	EUROASSAY strip with antigens	10 x 03

EUROLINE for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DL 0160-1601 G DL 0160-5001 G	EUROLINE validation	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ
DL 1111-1601-2 G	Neuronal Antigens Profile 2 (amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu separately)	IgG	EUROLINE	16 strips
DL 1111-1601-4 G	Neuronal Antigens Profile PLUS RST (amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu, recoverin, SOX1, titin separately)	IgG	EUROLINE	16 strips
DL 1111-1601-6 G	Neuronal Antigens Profile SOX1, titin	IgG	EUROLINE	16 strips
DL 1111-1601-7 G DL 1111-5001-7 G DL 1111-6401-7 G	Paraneoplastic Neurologic Syndromes - 12 Ag (amphiphysin, CV2, PNMA2 (Ma-2/Ta), Ri, Yo, Hu, recoverin, SOX1, titin, Zic4, GAD65, Tr (DNER) separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1130-1601-1 G	Gangliosides Profile 1 (GM1, GD1b, GQ1b separately)	IgG	EUROLINE	16 strips
DL 1130-1601-1 M	Gangliosides Profile 1 (GM1, GD1b, GQ1b separately)	IgM	EUROLINE	16 strips
DL 1130-1601-2 G	Gangliosides Profile 2 (GM1, GM2, GM3, GD1a, GD1b, GT1b, GQ1b separately)	IgG	EUROLINE	16 strips
DL 1130-1601-2 M	Gangliosides Profile 2 (GM1, GM2, GM3, GD1a, GD1b, GT1b, GQ1b separately)	IgM	EUROLINE	16 strips
DL 1200-1601-2 G DL 1200-6401-2 G	myeloperoxidase (MPO) proteinase 3 (PR3)	IgG	EUROLINE	16 strips 64 strips
DL 1200-1601-3 G DL 1200-6401-3 G	myeloperoxidase (MPO) proteinase 3 (PR3) glomerular basement membrane (GBM)	IgG	EUROLINE	16 strips 64 strips
DL 1300-1601-2 G DL 1300-6401-2 G	Liver Profile 2 (AMA M2, M2-3E, LKM-1, LC-1, SLA/LP separately)	IgG	EUROLINE	16 strips 64 strips
DL 1300-1601-3 G DL 1300-6401-3 G	Liver Profile (AMA M2, LKM-1, LC-1, SLA/LP separately)	IgG	EUROLINE	16 strips 64 strips
DL 1300-1601-4 G DL 1300-5001-4 G DL 1300-6401-4 G	Autoimmune Liver Diseases (AMA M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, Ro-52 separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1300-1601-5 G	Autoimmune Liver Diseases 14 Ag (AMA-M2, M2-3E, Sp100, PML, gp210, LKM-1, LC-1, SLA/LP, SS-A, Ro-52, Scl-70, CENP A, CENP B, PGDH separately)	IgG	EUROLINE	16 strips
DL 1530-1601 G	Myositis Profile (Mi-2, Ku, PM-Scl, Jo-1, PL-7, PL-12, Ro-52 separately)	IgG	EUROLINE	16 strips
DL 1530-1601-3 G DL 1530-6401-3 G	Myositis Profile 3 (Mi-2, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1530-1601-4 G DL 1530-5001-4 G DL 1530-6401-4 G	Autoimmune Inflammatory Myopathies 16 Ag (Mi-2 alpha, Mi-2 beta, TIF1g, MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52 separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips

EUROLINE for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DL 1532-1601 G DL 1532-5001 G DL 1532-6401 G	Systemic Sclerosis Profile (Nucleoli) (Scl-70, CENP A, CENP B, RP11, RP155, fibrillarin, NOR90, Th/To, PM-Scl100, PM-Scl75, Ku, PDGFR, Ro-52 separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1590-1601-1 G DL 1590-6401-1 G	Anti-ENA ProfilePlus 1 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, Jo-1 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-3 G DL 1590-5001-3 G DL 1590-6401-3 G	ANA Profile 3 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2 separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1590-1601-5 G DL 1590-6401-5 G	ANA Profile 5 (nRNP/Sm, Sm, RNP70, RNPA, RNPC, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-8 G DL 1590-5001-8 G DL 1590-6401-8 G	ANA Profile 1 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, Jo-1, CENP B, dsDNA, nucleosomes, histones, ribosomal P-proteins separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1590-1601-23 G DL 1590-6401-23 G	ANA Profile 23 (nucleosomes, dsDNA, histones, SS-A, Ro-52, SS-B, nRNP/Sm, Sm, Mi-2 alpha, Mi-2 beta, Ku, CENP A, CENP B, Sp100, PML, Scl-70, PM-Scl100, PM-Scl75, RP11, RP155, gp210, PCNA, DFS70 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-30 G DL 1590-5001-30 G DL 1590-6401-30 G	ANA Profile 3 plus DFS70 (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2, DFS70 separately)	IgG	EUROLINE	16 strips 50 strips Immunoblot-PreQ 64 strips
DL 1590-1601-31 G DL 1590-6401-31 G	ANA Profile et Mi-2 et Ku (Mi-2, Ku, nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-32 G	dsDNA, nucleosomes, histones, DFS70	IgG	EUROLINE	16 strips
DL 1590-1601-33 G DL 1590-6401-33 G	ANA Profile et Mi-2, Ku, DFS70 (Mi-2, Ku, nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl100, Jo-1, CENP B, PCNA, dsDNA, nucleosomes, histones, ribosomal P-proteins, AMA M2, DFS70 separately)	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-34 G DL 1590-6401-34 G	Mi2 alpha, Mi2 beta, Ku, DFS70	IgG	EUROLINE	16 strips 64 strips
DL 1590-1601-35 G DL 1590-6401-35 G	Cytoplasm profile (AMA M2, M2-3E, ribosomal P-proteins, Jo-1 SRP, PL-7, PL-12, EJ, OJ, Ro-52 separately)	IgG	EUROLINE	16 strips 64 strips
DL 159z-1601 G	EUROLINE Anti-DFS70	IgG	EUROLINE	16 strips
DL 1910-1601 A	Coeliac Disease Profile (tissue transglutaminase (endomysium), gliadin-analogue fusion peptide (GAF-3X) separately)	IgA	EUROLINE	16 strips
DL 1910-1601 G	Coeliac Disease Profile (tissue transglutaminase (endomysium), gliadin-analogue fusion peptide (GAF-3X) separately)	IgG	EUROLINE	16 strips

Microplate ELISA for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EA 1012-9601 G	**thyroid peroxidase (TPO)**	IgG	10/50/500 IU/ml	96 x 01
EA 1013-9601 G	**thyroglobulin (TG)**	IgG	20/100/1000 IU/ml	96 x 01
EA 1015-9601 G	**TSH receptor (thyrotropin receptor)**	IgG	0/1/2/8/40 IU/l	96 x 01
EA 1015-9601-1 G	**TSH receptor (thyrotropin receptor) Fast ELISA**	IgG	0.1/1/2/8/40 IU/l	96 x 01
EA 1022-9601 G	**GAD**	IgG	5/15/35/120/ 250/2000 IU/ml	96 x 01
EA 1022-9601-1 G	**GAD/IA2 Pool**	IgG	4/10/20/70/ 145/450 IU/ml	96 x 01
EA 1023-9601 G	**IA2**	IgG	10/20/75/250/400/ 4000 IU/ml	96 x 01
EA 1027-9601	**zinc transporter 8**		10/20/75/500/2000 U/ml	96 x 01
EA 1086-9601	**spermatozoa (Ig typing)**	IgA/G/M	31/62/125/ 250 RU/ml	96 x 01
EA 1086-9601 P	**spermatozoa**	IgAGM	31/62/125/ 250 RU/ml	96 x 01
EA 1200-1208-1 G	**ANCA Profile (proteinase 3, MPO, elastase, cathepsin G, BPI, lactoferrin separately)**	IgG	semi-quantitative	12 x 08
EA 1201-9601-2 G	**cANCA: proteinase 3 (PR3-hn-hr)**	IgG	2/20/200 RU/ml	96 x 01
EA 1211-9601 G	**pANCA: myeloperoxidase (MPO)**	IgG	2/20/200 RU/ml	96 x 01
EA 1251-9601 G	**glomerular basement membrane (GBM)**	IgG	2/20/200 RU/ml	96 x 01
EA 1254-9601 G	**phospholipase A2 receptor (PLA2R)**	IgG	2/20/100/500/ 1500 RU/ml	96 x 01
EA 1302-9601 G	**soluble liver antigen/ liver-pancreas antigen (SLA/LP)**	IgG	2/20/200 RU/ml	96 x 01
EA 1307-9601 G	**cytosolic liver antigen type 1 (LC-1)**	IgG	semi-quantitative	96 x 01
EA 1321-9601 G	**liver-kidney microsomes (LKM-1)**	IgG	2/20/200 RU/ml	96 x 01
EA 1361-9601 G	**parietal cells (PCA)**	IgG	2/20/200 RU/ml	96 x 01
EA 1362-9601 G	**intrinsic factor**	IgG	2/20/200 RU/ml	96 x 01
EA 1435-9601 G	**acetylcholine receptor**	IgG	0.25/0.75/2.5/ 8 nmol/l	96 x 01
EA 1490-1208-1 G	**Dermatology Profile (BP180-NC16A-4X, BP230-CF, desmoglein 1, desmoglein 3, envoplakin, collagen type VII separately)**	IgG	semi-quantitative	12 x 08

Microplate ELISA for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EA 1491-4801 G	envoplakin	IgG	semi-quantitative	48 x 01
EA 1495-4801 G	desmoglein 1	IgG	2/20/200 RU/ml	48 x 01
EA 1496-4801 G	desmoglein 3	IgG	2/20/200 RU/ml	48 x 01
EA 1502-4801-1 G	BP230-CF	IgG	2/20/200 RU/ml	48 x 01
EA 1502-4801-2 G	BP180-NC16A-4X	IgG	2/20/200 RU/ml	48 x 01
EA 1505-9601 G	cyclic citrullinated peptides (CCP)	IgG	1/5/20/100/ 200 RU/ml	96 x 01
EA 151a-4802 G	Sa	IgG	2/20/200 RU/ml	48 x 02
EA 151b-9601 G	CEP-1	IgG	2/20/200 RU/ml	96 x 01
EA 1560-9601 G	histones	IgG	2/20/200 RU/ml	96 x 01
EA 1571-9601 G	double-stranded DNA (dsDNA)	IgG	10/100/800 IU/ml	96 x 01
EA 1572-9601 G	dsDNA-NcX	IgG	10/100/800 IU/ml	96 x 01
EA 1574-9601 G	nucleosomes	IgG	2/20/200 RU/ml	96 x 01
EA 1576-9601 G	single-stranded DNA (ssDNA)	IgG	2/20/200 RU/ml	96 x 01
EA 1584-9601 G	PM-Scl	IgG	2/20/200 RU/ml	96 x 01
EA 1590-1208-1 G	Anti-ENA ProfilePlus 1 (nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1 separately)	IgG	semi-quantitative	12 x 08
EA 1590-1208-2 G	Anti-ENA ProfilePlus 2 (ribosomal P-proteins, nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, centromeres, separately)	IgG	semi-quantitative	12 x 08
EA 1590-9601-7 G	Anti-ENA PoolPlus (antigen mixture: nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1)	IgG	semi-quantitative	96 x 01
EA 1590-9601-8 G	ANA screen (antigen mixture: dsDNA, histones, ribosomal P-proteins, nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1, centromeres)	IgG	semi-quantitative	96 x 01
EA 1590-9601-9 G	Anti-ENA Pool (antigen mixture: nRNP/Sm, Sm, SS-A, SS-B, Scl-70, ribosomal P-proteins, Ro-52)	IgG	semi-quantitative	96 x 01
EA 1590-9601-11 G	ANA screen 11 (antigen mixture: PCNA, PM-Scl, ribosomal P-proteins, nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, Jo-1, centromeres)	IgG	semi-quantitative	96 x 01
EA 1590-1208-12 G	Anti-ENA SLE Profile 2 (dsDNA, histones, nucleosomes, nRNP/Sm, Sm, SS-A, SS-B, Scl-70 separately)	IgG	semi-quantitative	12 x 08
EA 1590-9601-14 G	ANA screen 9 (antigen mixture: PCNA, PM-Scl, ribosomal P-proteins, nRNP/Sm, Sm, SS-A, SS-B, Scl-70, Jo-1)	IgG	semi-quantitative	96 x 01
EA 1591-9601 G	nRNP/Sm	IgG	2/20/200 RU/ml	96 x 01
EA 1593-9601 G	Sm	IgG	2/20/200 RU/ml	96 x 01
EA 1595-9601 G	SS-A (Ro)	IgG	2/20/200 RU/ml	96 x 01

Microplate ELISA for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EA 1597-9601 G	**SS-B (La)**	IgG	2/20/200 RU/ml	96 x 01
EA 1599-9601 G	**Scl-70**	IgG	2/20/200 RU/ml	96 x 01
EA 159z-9601 G	**DFS70**	IgG	semi-quantitative	96 x 01
EA 1611-9601 G	**centromeres**	IgG	2/20/200 RU/ml	96 x 01
EA 1621-9601 A	**cardiolipin (AMA M1)**	IgA	2/12/120 PL IgA U/ml	96 x 01
EA 1621-9601 G	**cardiolipin (AMA M1)**	IgG	2/12/120 PL IgG U/ml	96 x 01
EA 1621-9601 M	**cardiolipin (AMA M1)**	IgM	2/12/120 PL IgM U/ml	96 x 01
EA 1621-9601 P	**cardiolipin (AMA M1)**	IgAGM	2/12/120 RU/ml	96 x 01
EA 1622-9601 G	**AMA M2-3E**	IgG	2/20/200 RU/ml	96 x 01
EA 162a-9601 A	**phosphatidylserine**	IgA	2/12/120 RU/ml	96 x 01
EA 162a-9601 G	**phosphatidylserine**	IgG	2/12/120 RU/ml	96 x 01
EA 162a-9601 M	**phosphatidylserine**	IgM	2/12/120 RU/ml	96 x 01
EA 162a-9601 P	**phosphatidylserine**	IgAGM	2/12/120 RU/ml	96 x 01
EA 1632-9601 A	**ß2-glycoprotein 1**	IgA	2/20/200 RU/ml	96 x 01
EA 1632-9601 G	**ß2-glycoprotein 1**	IgG	2/20/200 RU/ml	96 x 01
EA 1632-9601 M	**ß2-glycoprotein 1**	IgM	2/20/200 RU/ml	96 x 01
EA 1632-9601 P	**ß2-glycoprotein 1**	IgAGM	2/20/200 RU/ml	96 x 01
EA 1641-9601 G	**ribosomal P-proteins**	IgG	2/20/200 RU/ml	96 x 01
EA 1661-9601 G	**Jo-1**	IgG	2/20/200 RU/ml	96 x 01
EA 1675-4801 G	**cN-1A (Mup44, NT5C1A)**	IgG	semi-quantitative	48 x 01
EA 1814-9601 A	**IgA rheumatoid factor (ab of class IgA against IgG)**	IgA	2/20/200 RU/ml	96 x 01
EA 1814-9601 G	**IgG rheumatoid factor (ab of class IgG against IgG)**	IgG	2/20/200 RU/ml	96 x 01
EA 1814-9601 M	**IgM rheumatoid factor (ab of class IgM against IgG)**	IgM	2/20/200 RU/ml	96 x 01
EA 1818-9601 G	**circulating immune complexes (CIC)**	IgG	2/20/200 RU/ml	96 x 01
EA 1910-9601 A	**tissue transglutaminase (endomysium)**	IgA	2/20/200 RU/ml	96 x 01
EA 1910-9601 G	**tissue transglutaminase (endomysium)**	IgG	semi-quantitative	96 x 01
EA 1947-4801 G	**collagen type VII**	IgG	2/20/200 RU/ml	48 x 01

Microplate ELISA for the Determination of Antibodies against Other Antigens (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EV 2841-9601 A	**Saccharomyces cerevisiae**	IgA	2/20/200 RU/ml	96 x 01
EV 2841-9601 G	**Saccharomyces cerevisiae**	IgG	2/20/200 RU/ml	96 x 01
EV 3011-9601 A	**gliadin (GAF-3X)**	IgA	2/25/200 RU/ml	96 x 01
EV 3011-9601 G	**gliadin (GAF-3X)**	IgG	2/25/200 RU/ml	96 x 01
EV 3840-9601 E	**total IgE**	IgE	0/10/100/500 IU/ml	96 x 01

Microplate ELISA for Therapeutic Drug Monitoring (Test Systems)

Order No.	Antibodies against	Ig Class	Format
ED 4110-9601	**MabTrack level adalimumab**		96 x 01
ED 4111-4801 G	**MabTrack anti-drug antibody adalimumab**	IgG	48 x 01
ED 4120-9601	**MabTrack level infliximab**		96 x 01
ED 4121-4801 G	**MabTrack anti-drug antibody infliximab**	IgG	48 x 01

Chemiluminescence Tests for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
LA 1201-10010 G	**proteinase 3 (PR3)**	IgG	qantitative	100 determinations for RA Analyzer

Control Sets for Chemiluminescence Tests

Order No.	Control Set (Ready for use)	Ig Class	Format
LR 1201-20210 G	**control set Proteinase 3 (PR3)**	IgG	2 x 0.4 ml control QC1/2

Radioimmunoassays (RIA) for the Determination of Autoantibodies (Test Systems)

Order No.	Antibodies against	Antigen and Antigen Source	Calibration	Format
RA 1012-10001-1	**thyroid peroxidase (TPO) coated tubes (CT)**	native thyroid peroxidase, human	0/8/40/200/1000/ 7500 U/ml	100 x 01
RA 1012-10001-2	**thyroid peroxidase (TPO) precipitation**	native thyroid peroxidase, human	12/40/120/400/ 1200/4000 U/ml	100 x 01
RA 1012-10001-3 **RA 1012-20001-3**	**thyroid peroxidase (TPO) magnetic separation**	native thyroid peroxidase, human	20/80/400/2000/ 8000 U/ml	100 x 01 200 x 01
RA 1013-10001-1	**thyroglobulin (TG) coated tubes (CT)**	native thyroglobulin, human	0/20/50/200/1000/ 4000 U/ml	100 x 01
RA 1013-10001-3	**thyroglobulin (TG) magnetic separation**	native thyroglobulin, human	20/80/250/1000/ 4000 U/ml	100 x 01
RA 1015-10001-1	**TSH receptor coated tubes (CT)**	native TSH receptor, porcine	0/1/2/8/40 IU/l	100 x 01
RA 1024-5001 **RA 1024-10001**	**insulin precipitation**	synthetic product, human	0/0.4/1/10/50 U/ml	50 x 01 100 x 01
RA 1435-3001-1 **RA 1435-10001-1**	**acetylcholine receptor (ACHR) precipitation**	extract, human	0/0.25/0.75/ 2.5/8 nmol/l	30 x 01 100 x 01
RA 1571-10001	**double-stranded DNA (dsDNA) precipitation**	plasmid DNA	6 standards, variable 0-100 IU/ml	100 x 01

RIA for Direct Detection of Autoantigens, Hormone Determination (Test Systems)

Order No.	Antigen	Analyte	Calibration	Format
RD 1013-10001	**thyroglobulin (TG) coated tubes (CT); IRMA**	**native thyroglobulin**	0.3/1/4/20/100/ 250 ng/ml	100 x 01
RD 1016-10001	**free triiodothyronine (FT3) coated tubes (CT)**	**triiodothyronine, human**	0/2/5/10/20/ 40 pmol/l	100 x 01
RD 1017-10001	**free thyroxine (FT4) coated tubes (CT)**	**thyroxine, human**	0/6/12/25/50/ 100 pmol/l	100 x 01
RD 1018-10001-1	**Turbo thyrotropin (TSH) coated tubes (CT); IRMA**	**thyrotropin, human**	0/0.06/0.15/0.6/2.5/ 15/50/100 µIU/ml	100 x 01
RD 1019-10001	**calcitonin coated tubes (CT); IRMA**	**calcitonin, human**	6 standards, variable 0-2000 pg/ml	100 x 01

Diagnostics for Indirect Immunofluorescence: Organ-Specific Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1010-1005 **FB 1010-1005**	**thyroid gland (MAb + TAb)**	IgG	thyroid gland	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1010-1005-1 **FB 1010-1005-1**	**thyroid gland (MAb + TAb)** **mitochondria (AMA)**	IgG	thyroid gland kidney (2 BIOCHIPs per field)	monkey rat	10 x 05 (test system) 10 x 05 (single slides)
FA 1010-1005-2	**Polyendocrinopathy Mosaic** **thyroid gland (MAb + TAb)** **pancreas islets** **adrenal cortex** **ovarian antigens** **Leydig cells** **parietal cells (PCA)**	IgAGM	6 BIOCHIPs per field: thyroid gland pancreas adrenal gland ovary testis stomach	 monkey monkey monkey monkey monkey monkey	10 x 05 (test system)
FA 1010-1005-3 **FA 1010-1010-3** **FB 1010-1005-3**	**EUROPLUS** **thyroid gland (MAb + TAb)** **thyroglobulin (TG)**	IgG	2 BIOCHIPs per field: thyroid gland TG BIOCHIPs	 monkey human	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides)
FA 1020-1003 **FA 1020-1005** **FA 1020-1010** **FA 1020-2005** **FA 1020-2010** **FB 1020-1003** **FB 1020-1005** **FB 1020-1010** **FB 1020-2005** **FB 1020-2010**	**pancreas islets**	IgG	pancreas	monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FC 1020-2005 **FC 1020-2010**	**islet cells antibodies (PM) EUROPattern** **pancreas islets**	IgG	1 BIOCHIP per field: pancreas	 monkey	20 x 05 (test system) 20 x 10 (test system)
FA 1020-1005-1 **FA 1020-1010-1** **FA 1020-2010-1** **FA 1020-12010-1** **FB 1020-1005-1** **FB 1020-1010-1** **FB 1020-2010-1**	**pancreas islets**	IgG	pancreas islets (three 1 x 1 mm BIOCHIPs per field)	monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 10 (test system) 120 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 10 (single slides)
FA 1020-1003-3 **FA 1020-1005-3** **FA 1020-1010-3** **FA 1020-2005-3** **FA 1020-2010-3** **FB 1020-1005-3** **FB 1020-1010-3** **FB 1020-2005-3** **FB 1020-2010-3**	**pancreas islets, GAD** **brain: grey and white matter,** **Purkinje cell cytoplasm (Yo),** **Hu and Ri antigen**	IgG	pancreas cerebellum (2 BIOCHIPs per field)	monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FA 1022-1005-50	**glutamic acid decarboxylase (GAD) 65 kDa** **(stiff-person syndrome)**	IgG	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 05 (test system)
FA 1040-1005 **FB 1040-1005**	**parathyroid gland**	IgAGM	parathyroid gland	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1050-1003 **FA 1050-1005** **FB 1050-1005**	**adrenal cortex**	IgAGM	adrenal gland	monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 05 (single slides)
FC 1050-1003 **FC 1050-1005** **FC 1050-1010** **FC 1050-2005** **FC 1050-2010**	**Endocrinology Screen (AM) EUROPattern** **adrenal cortex**	IgAGM	1 BIOCHIP per field: adrenal gland	 monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FA 1060-1005 **FB 1060-1005**	**ovarian antigens**	IgAGM	ovary	monkey	10 x 05 (test system) 10 x 05 (single slides)

Diagnostics for Indirect Immunofluorescence: Organ-Specific Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1060-1003-7	**Infertility Mosaic 7** **ovarian antigens** **Leydig cells** **placental antigens** **spermatozoa** **uterine antigens**	IgAGM	5 BIOCHIPs per field: ovary testis placenta smear uterus	 monkey monkey monkey human monkey	10 x 03 (test system)
FB 1070-1005 *	**placental antigens**		placenta	monkey	10 x 05 (single slides)
FA 1080-1005 **FB 1080-1005**	**Leydig cells**	IgAGM	testis	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1086-1003 **FA 1086-1005** **FA 1086-1010** **FB 1086-1005** **FB 1086-1010**	**spermatozoa**	IgAGM	smear	human	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1090-1005 **FB 1090-1005**	**pituitary gland antigens**	IgAGM	pituitary gland (anterior + posterior lobe)	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1091-1005 **FB 1091-1005**	**pituitary gland antigens**	IgAGM	pituitary gland (anterior lobe)	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1111-1005 **FA 1111-1010** **FB 1111-1005** **FB 1111-1010**	**brain: grey and white matter,** **Purkinje cell cytoplasm (Yo),** **Hu and Ri antigen** **CV2, Ma, amphiphysin**	IgAGM	cerebellum	monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1111-1003-1 **FA 1111-1005-1** **FA 1111-1010-1** **FB 1111-1005-1** **FB 1111-1010-1**	**Neurology Mosaic 1** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves** **non-medullated nerves**	IgAGM	3 BIOCHIPs per field: cerebellum nerves intestinal tissue	 monkey monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1111-1003-1 **FC 1111-1005-1** **FC 1111-1010-1** **FW1111-1003-1** **FW1111-1005-1** **FW1111-1010-1**	**Neurology Mosaic 1 EUROPattern** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves** **non-medullated nerves**	IgG	3 BIOCHIPs per field: cerebellum nerves intestinal tissue	 monkey monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1111-1005-2 **FA 1111-1010-2** **FB 1111-1005-2** **FB 1111-1010-2**	**Neurology Mosaic 2** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves**	IgAGM	2 BIOCHIPs per field: cerebellum nerves	 monkey monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1111-1005-8 **FA 1111-1010-8** **FA 1111-12010-8** **FB 1111-1005-8** **FB 1111-1010-8**	**Neurology Mosaic 8** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves** **non-medullated nerves** **pancreas islets**	IgAGM	4 BIOCHIPs per field cerebellum nerves intestinal tissue pancreas	 monkey monkey monkey monkey	10 x 05 (test system) 10 x 10 (test system) 120 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1111-1005-8 **FC 1111-1010-8**	**Neurology Mosaic 8 EUROPattern** **Yo, Hu, Ri, CV2, Ma, amphiphysin** **medullated nerves** **non-medullated nerves** **pancreas islets**	IgG	4 BIOCHIPs per field: cerebellum nerves intestinal tissue pancreas	 monkey monkey monkey monkey	10 x 05 (test system) 10 x 10 (test system)
FA 1111-1003-14 **FA 1111-1005-14** **FA 1111-1010-14** **FB 1111-1005-14** **FB 1111-1010-14**	**Neurology Mosaic14** **cerebellum antigens** **non-medullated nerves**	IgAGM	2 BIOCHIPs per field: cerebellum non-medullated nerves	 monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)

*) Currently not available as IVD in the European Union.

Diagnostics for Indirect Immunofluorescence: Organ-Specific Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1111-1005-16	**Yo, Hu, Ri, CV2, Ma, amphiphysin**	IgAGM	cerebellum	monkey	10 x 05 (test system)
FA 1111-1010-16	**medullated nerves**		nerves	monkey	10 x 10 (test system)
FB 1111-1005-16	**non-medullated nerves**		intestinal tissue	monkey	10 x 05 (single slides)
FB 1111-1010-16	**cell nuclei (ANA)**		HEp-2 cells	human	10 x 10 (single slides)
			(4 BIOCHIPs per field)		
FA 1111-1005-17	**Neurology Mosaic 17**	IgG	5 BIOCHIPs per field		10 x 05 (test system)
FA 1111-1010-17	**Yo, Hu, Ri, CV2, Ma, amphiphysin, NMO**		cerebellum	monkey	10 x 10 (test system)
FA 1111-2005-17	**cerebrum antigens, NMO**		cerebrum	monkey	20 x 05 (test system)
FB 1111-1005-17	**NMO, optic nerve antigens**		optic nerve	monkey	10 x 05 (single slides)
FB 1111-1010-17	**aquaporin-4**		transfected cells	EU 90	10 x 10 (single slides)
FB 1111-2005-17			control transfection	EU 90	20 x 05 (single slides)
FA 1112-1005-50	**Delta and Notch-like epidermal growth factor-related receptor (DNER)**	IgG	transfected cells	EU 90	10 x 05 (test system)
			control transfection	EU 90	
			(2 BIOCHIPs per field)		
FA 1113-1005-1	**Purkinje Cell Mosaic 1**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
	Yo/CDR2		transfected cells	EU 90	
	DNER		transfected cells	EU 90	
	ITPR1		transfected cells	EU 90	
	CARP		transfected cells	EU 90	
FA 111a-1003-51	**zinc finger protein ZIC4**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 111a-1005-51			control transfection	EU 90	10 x 05 (test system)
			(2 BIOCHIPs per field)		
FA 111m-1003-3	**hippocampus antigens**	IgG	hippocampus	rat	10 x 03 (test system)
FA 111m-1005-3	**cerebellum antigens**		cerebellum	rat	10 x 05 (test system)
FA 111m-1010-3	**glutamate receptor (type NMDA)**		transfected cells	EU 90	10 x 10 (test system)
FB 111m-1005-3			control transfection	EU 90	10 x 05 (single slides)
FB 111m-1010-3			(4 BIOCHIPs per field)		10 x 10 (single slides)
FA 1120-1005	**medullated nerves**	IgAGM	nerves	monkey	10 x 05 (test system)
FB 1120-1005					10 x 05 (single slides)
FA 1124-1005-50 *	**Flotillin (FLOT1/2)**	IgG	transfected cells	EU 90	10 x 05 (test system)
			control transfection	EU 90	
			(2 BIOCHIPs per field)		
FA 1128-1005-1	**NMOSD Screen 1**	IgG	3 BIOCHIPs per field:		10 x 05 (test system)
FA 1128-1010-1	**aquaporin-4 (AQP-4)**		transfected cells	EU 90	10 x 10 (test system)
	Myelin-oligodendrocyte glycoprotein (MOG)		transfected cells	EU 90	
			control transfection	EU 90	
FC 1128-2005-1	**NMOSD Screen 1 EUROPattern**	IgG Pl	3 BIOCHIPs per field:		20 x 05 (test system)
	aquaporin-4 (AQP-4)		transfected cells	EU 90	
	Myelin-oligodendrocyte glycoprotein (MOG)		transfected cells	EU 90	
			control transfection	EU 90	
FA 1128-1003-50	**aquaporin-4**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 1128-1005-50			control transfection	EU 90	10 x 05 (test system)
FA 1128-1010-50			(2 BIOCHIPs per field)		10 x 10 (test system)
FB 1128-1003-50					10 x 03 (single slides)
FB 1128-1005-50					10 x 05 (single slides)
FB 1128-1010-50					10 x 10 (single slides)
FC 1128-1005-50	**aquaporin-4 EUROPattern**	IgG Pl	transfected cells	EU 90	10 x 05 (test system)
FC 1128-1010-50			control transfection	EU 90	10 x 10 (test system)
FC 1128-2005-50			(2 BIOCHIPs per field)		20 x 05 (test system)
FC 1128-2010-50					20 x 10 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 112d-1003-1	**Autoimmune Encephalitis Mosaic 1**	IgG	6 BIOCHIPs per field:		10 x 03 (test system)
FA 112d-1005-1	**glutamate receptor (type NMDA)**		transfected cells	EU 90	10 x 05 (test system)
FB 112d-1003-1	**glutamate receptor (type AMPA1)**		transfected cells	EU 90	10 x 03 (single slides)
FB 112d-1005-1	**glutamate receptor (type AMPA2)**		transfected cells	EU 90	10 x 05 (single slides)
	contactin-associated protein 2 (CASPR2)		transfected cells	EU 90	
	leucine-rich glioma-inactivated protein 1 (LGI1)		transfected cells	EU 90	
	GABA B receptor		transfected cells	EU 90	
FA 112d-1003-6	**Autoimmune Encephalitis Mosaic 6**	IgG	6 BIOCHIPs per field:		10 x 03 (test system)
FA 112d-1005-6	**glutamate receptor (type NMDA)**		transfected cells	EU 90	10 x 05 (test system)
FA 112d-1010-6	**contactin-associated protein 2 (CASPR2)**		transfected cells	EU 90	10 x 10 (test system)
FB 112d-1005-6	**glutamate receptors (type AMPA1/2)**		transfected cells	EU 90	10 x 05 (single slides)
	leucine-rich glioma-inactivated protein 1 (LGI1)		transfected cells	EU 90	
	dipeptidyl aminopeptidase-like protein 6 (DPPX)		transfected cells	EU 90	
	GABA B receptor		transfected cells	EU 90	
FC 112d-1005-6	**Autoimmune Encephalitis Mosaic 6 EUROPattern**	IgG PI	6 BIOCHIPs per field:		10 x 05 (test system)
FC 112d-1010-6	**glutamate receptor (type NMDA)**		transfected cells	EU 90	10 x 10 (test system)
FC 112d-2005-6	**contactin-associated protein 2 (CASPR2)**		transfected cells	EU 90	20 x 05 (test system)
FC 112d-2010-6	**glutamate receptors (type AMPA1/2)**		transfected cells	EU 90	20 x 10 (test system)
	leucine-rich glioma-inactivated protein 1 (LGI1)		transfected cells	EU 90	
	dipeptidyl aminopeptidase-like protein 6 (DPPX)		transfected cells	EU 90	
	GABA B receptor		transfected cells	EU 90	
FA 112d-1003-51	**glutamate receptor (type NMDA)**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 112d-1005-51			control transfection	EU 90	10 x 05 (test system)
FA 112d-1010-51			(2 BIOCHIPs per field)		10 x 10 (test system)
FB 112d-1003-51					10 x 03 (single slides)
FB 112d-1005-51					10 x 05 (single slides)
FB 112d-1010-51					10 x 10 (single slides)
FC 112d-1003-51	**glutamate receptor (type NMDA) EUROPattern**	IgG PI	transfected cells	EU 90	10 x 03 (test system)
FC 112d-1005-51			control transfection	EU 90	10 x 05 (test system)
FC 112d-1010-51			(2 BIOCHIPs per field)		10 x 10 (test system)
FA 112k-1003-1	**glutamate receptor (type AMPA1)**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 112k-1005-1	**glutamate receptor (type AMPA2)**		transfected cells	EU 90	10 x 05 (test system)
FB 112k-1005-1			control transfection	EU 90	10 x 05 (single slides)
			(3 BIOCHIPs per field)		
FA 112l-1003-50	**GABA B receptor**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 112l-1005-50			control transfection	EU 90	10 x 05 (test system)
FB 112l-1005-50			(2 BIOCHIPs per field)		10 x 05 (single slides)
FC 112l-1003-50	**GABA B receptor EUROPattern**	IgG PI	transfected cells	EU 90	10 x 03 (test system)
FC 112l-1005-50			control transfection	EU 90	10 x 05 (test system)
			(2 BIOCHIPs per field)		
FA 112m-1003-50	**dipeptidyl aminopeptidase-like protein 6 (DPPX)**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 112m-1005-50			control transfection	EU 90	10 x 05 (test system)
			(2 BIOCHIPs per field)		
FC 112m-2005-50	**dipeptidyl aminopeptidase-like protein 6 (DPPX) EUROPattern**	IgG PI	transfected cells	EU 90	20 x 05 (test system)
			control transfection	EU 90	
			(2 BIOCHIPs per field)		
FA 112n-1005-52 *	**metabotropic glutamate receptor 5 (mGluR5)**	IgG	transfected cells	EU 90	10 x 05 (test system)
			control transfection	EU 90	
			(2 BIOCHIPs per field)		
FA 1151-1003-50	**IgLON family member 5 (IgLON5)**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 1151-1005-50			control transfection	EU 90	10 x 05 (test system)
			(2 BIOCHIPs per field)		
FA 1156-1003-50	**Myelin-oligodendrocyte glycoprotein (MOG)**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 1156-1005-50			control transfection	EU 90	10 x 05 (test system)
FA 1156-1010-50			(2 BIOCHIPs per field)		10 x 10 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1156-2005-50	**Myelin-Oligodendrocyte-Glycoprotein (MOG) EUROPattern**	IgG PI	transfected cells control transfection	EU 90 EU 90	20 x 05 (test system)
FA 1170-1005 **FB 1170-1005**	**eye antigens**	IgAGM	eye	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1172-1005 **FB 1172-1005**	**retina**	IgAGM	eye	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1200-1005 **FA 1200-1010** **FA 1200-2005** **FA 1200-18010** **FB 1200-1005** **FB 1200-1010** **FB 1200-2005** **FB 1200-18010**	**cytoplasm of granulocytes (cANCA, pANCA), nuclei of granulocytes (GS-ANA)**	IgG	granulocytes, ethanol-fixed	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 180 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 180 x 10 (single slides)
FC 1200-1005 **FC 1200-1010** **FC 1200-2005** **FC 1200-2010**	**cytoplasm of granulocytes (cANCA, pANCA), nuclei of granulocytes (GS-ANA) EUROPattern**	IgG EB	granulocytes, ethanol-fixed	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FA 1201-1005 **FA 1201-1010** **FB 1201-1005** **FB 1201-1010**	**granulocytes (cANCA, pANCA)**	IgG	granulocytes, formaldehyde-fixed	human	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1201-1005 **FC 1201-1010** **FC 1201-2005**	**granulocytes (cANCA, pANCA) EUROPattern**	IgG EB	granulocytes, formaldehyde-fixed	human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)
FA 1201-1003-2 **FA 1201-1005-2** **FA 1201-1010-2** **FA 1201-2005-2** **FA 1201-2010-2** **FB 1201-1005-2** **FB 1201-1010-2** **FB 1201-2005-2** **FB 1201-2010-2**	**Granulocyte Mosaic 2 cANCA, pANCA, GS-ANA cANCA, pANCA**	IgG	2 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO)	 human human	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FC 1201-1005-2 **FC 1201-1010-2** **FC 1201-2005-2** **FC 1201-2010-2**	**Granulocyte Mosaic 2 EUROPattern cANCA, pANCA, GS-ANA, EUROPattern cANCA, pANCA, EUROPattern**	IgG EB	2 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO)	 human human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FA 1201-1005-4 **FA 1201-1010-4** **FA 1201-2005-4** **FA 1201-12010-4** **FB 1201-1005-4** **FB 1201-1010-4** **FB 1201-2005-4**	**Granulocyte Mosaic 4 cANCA, pANCA, GS-ANA cANCA, pANCA cell nuclei (ANA)**	IgG	3 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO) HEp-2 cells	 human human human	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 120 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FC 1201-1003-4 **FC 1201-1005-4** **FC 1201-1010-4** **FC 1201-2005-4** **FC 1201-12010-4** **FW1201-1003-4** **FW1201-1005-4** **FW1201-1010-4** **FW1201-2005-4**	**Granulocyte Mosaic 4 EUROPattern cANCA, pANCA, GS-ANA, EUROPattern cANCA, pANCA, EUROPattern cell nuclei (ANA)**	IgG EB	3 BIOCHIPs per field: granulocytes (EOH) granulocytes (HCHO) HEp-2 cells	 human human human	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 120 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1201-1003-13	**Granulocyte Mosaic 13**	IgG	3 BIOCHIPs per field:		10 x 03 (test system)
FA 1201-1005-13	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 05 (test system)
FA 1201-1010-13	**cell nuclei (ANA), cANCA, pANCA**		HEp-2+granulocytes (EOH)	human	10 x 10 (test system)
FA 1201-2005-13	**cANCA, pANCA**		granulocytes (HCHO)	human	20 x 05 (test system)
FA 1201-2010-13					20 x 10 (test system)
FA 1201-1050-13					10 x 50 (test system)
FA 1201-12010-13					120 x 10 (test system)
FA 1201-2450-13					24 x 50 (test system)
FB 1201-1003-13					10 x 03 (single slides)
FB 1201-1005-13					10 x 05 (single slides)
FB 1201-1010-13					10 x 10 (single slides)
FB 1201-2005-13					20 x 05 (single slides)
FB 1201-2010-13					20 x 10 (single slides)
FB 1201-1050-13					10 x 50 (single slides)
FC 1201-1005-13	**Granulocyte Mosaic 13 EUROPattern**	IgG EB	3 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-13	**cANCA, pANCA, GS-ANA, EUROPattern**		granulocytes (EOH)	human	10 x 10 (test system)
FC 1201-2005-13	**cell nuclei (ANA), cANCA, pANCA**		HEp-2+granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-13	**cANCA, pANCA, EUROPattern**		granulocytes (HCHO)	human	20 x 10 (test system)
FC 1201-12010-13					120 x 10 (test system)
FW1201-1005-13					10 x 05 (single slides)
FW1201-2010-13					20 x 10 (single slides)
FA 1201-1005-15	**Granulocyte Mosaic 15**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1201-1010-15	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 10 (test system)
FA 1201-2005-15	**cell nuclei (ANA), cANCA, pANCA**		HEp-2+granulocytes (EOH)	human	20 x 05 (test system)
FA 1201-2010-15					20 x 10 (test system)
FB 1201-1005-15					10 x 05 (single slides)
FB 1201-1010-15					10 x 10 (single slides)
FB 1201-2005-15					20 x 05 (single slides)
FB 1201-2010-15					20 x 10 (single slides)
FC 1201-1005-15	**Granulocyte Mosaic 15 EUROPattern**	IgG EB	2 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-15	**cANCA, pANCA, GS-ANA, EUROPattern**		granulocytes (EOH)	human	10 x 10 (test system)
FC 1201-2010-15	**cell nuclei (ANA), cANCA, pANCA**		HEp-2+granulocytes (EOH)	human	20 x 10 (test system)
FC 1201-1050-15					10 x 50 (test system)
FW1201-1005-15					10 x 05 (single slides)
FA 1201-1005-17	**Granulocyte Mosaic 17**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1201-1010-17	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 10 (test system)
FB 1201-1005-17	**cANCA, pANCA**		granulocytes (HCHO)	human	10 x 05 (single slides)
FB 1201-1010-17	**cANCA, pANCA**		granulocytes (MOH)	human	10 x 10 (single slides)
	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	
FA 1201-1005-20	**EUROPLUS Granulocyte Mosaic 20**	IgG	3 BIOCHIPs per field:		10 x 05 (test system)
FA 1201-1010-20	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 10 (test system)
FB 1201-1005-20	**pANCA: myeloperoxidase (MPO)**		MPO BIOCHIPs		10 x 05 (single slides)
FB 1201-1010-20	**cANCA: proteinase 3 (PR3)**		PR3 BIOCHIPs		10 x 10 (single slides)
FA 1201-1005-22	**EUROPLUS Granulocyte Mosaic 22**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1201-1010-22	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 10 (test system)
FA 1201-2005-22	**cANCA, pANCA**		granulocytes (HCHO)	human	20 x 05 (test system)
FB 1201-1005-22	**pANCA: myeloperoxidase (MPO)**		MPO BIOCHIPs		10 x 05 (single slides)
FB 1201-1010-22	**cANCA: proteinase 3 (PR3)**		PR3 BIOCHIPs		10 x 10 (single slides)
FB 1201-2005-22					20 x 05 (single slides)
FC 1201-1005-22	**EUROPLUS Granulocyte Mosaic 22**	IgG EB	4 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-22	**EUROPattern**				10 x 10 (test system)
FC 1201-2005-22	**cANCA, pANCA, GS-ANA, EUROPattern**		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-22	**cANCA, pANCA, EUROPattern**		granulocytes (HCHO)	human	20 x 10 (test system)
	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FA 1201-1005-25	**EUROPLUS Granulocyte Mosaic 25**	IgG	6 BIOCHIPs per field:		10 x 05 (test system)
FA 1201-1010-25	**cANCA, pANCA, GS-ANA**		granulocytes (EOH)	human	10 x 10 (test system)
FA 1201-2005-25	**cell nuclei (ANA), cANCA, pANCA**		HEp-2+granulocytes (EOH)	human	20 x 05 (test system)
FA 1201-2010-25	**cANCA, pANCA**		granulocytes (HCHO)	human	20 x 10 (test system)
FB 1201-1005-25	**glomerular basement membrane (GBM)**		GBM BIOCHIPs		10 x 05 (single slides)
FB 1201-1010-25	**pANCA: myeloperoxidase (MPO)**		MPO BIOCHIPs		10 x 10 (single slides)
FB 1201-2005-25	**cANCA: proteinase 3 (PR3)**		PR3 BIOCHIPs		20 x 05 (single slides)
FB 1201-2010-25					20 x 10 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1201-1005-25	EUROPLUS Granulocyte Mosaic 25	IgG EB	6 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-25	EUROPattern				10 x 10 (test system)
FC 1201-2005-25	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-25	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	20 x 10 (test system)
FW1201-1005-25	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	10 x 05 (single slides)
FW1201-2010-25	glom. basement membrane (GBM), EUROPattern		GBM BIOCHIPs		20 x 10 (single slides)
	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FA 1201-1003-32	EUROPLUS Granulocyte Mosaic 32	IgG	5 BIOCHIPs per field:		10 x 03 (test system)
FA 1201-1005-32	cANCA, pANCA, GS-ANA		granulocytes (EOH)	human	10 x 05 (test system)
FA 1201-1010-32	cANCA, pANCA		granulocytes (HCHO)	human	10 x 10 (test system)
FA 1201-2005-32	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	20 x 05 (test system)
FA 1201-2010-32	pANCA: myeloperoxidase (MPO)		MPO BIOCHIPs		20 x 10 (test system)
FB 1201-1003-32	cANCA: proteinase 3 (PR3)		PR3 BIOCHIPs		10 x 03 (single slides)
FB 1201-1005-32					10 x 05 (single slides)
FB 1201-1010-32					10 x 10 (single slides)
FB 1201-2005-32					20 x 05 (single slides)
FB 1201-2010-32					20 x 10 (single slides)
FC 1201-1005-32	EUROPLUS Granulocyte Mosaic 32	IgG EB	5 BIOCHIPs per field:		10 x 05 (test system)
FC 1201-1010-32	EUROPattern				10 x 10 (test system)
FC 1201-2005-32	cANCA, pANCA, GS-ANA, EUROPattern		granulocytes (EOH)	human	20 x 05 (test system)
FC 1201-2010-32	cANCA, pANCA, EUROPattern		granulocytes (HCHO)	human	20 x 10 (test system)
FW1201-1005-32	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	10 x 05 (single slides)
FW1201-1010-32	pANCA: myeloperoxidase (MPO), EUROPattern		MPO BIOCHIPs		10 x 10 (single slides)
	cANCA: proteinase 3 (PR3), EUROPattern		PR3 BIOCHIPs		
FA 1201-1005-40	Granulocyte Mosaic 40	IgG	5 BIOCHIPs per field:		10 x 05 (test system)
FB 1201-1005-40	cANCA, pANCA, GS-ANA		granulocytes (EOH)	human	10 x 05 (single slides)
	cell nuclei (ANA), cANCA, pANCA		HEp-2+granulocytes (EOH)	human	
	cANCA, pANCA		granulocytes (HCHO)	human	
	DNA-bound lactoferrin (pANCA)		LFS granulocytes	human	
	ANCA negative		HSS granulocytes	human	
FA 1202-1005	cytoplasm of granulocytes (cANCA,	IgG	granulocytes,	human	10 x 05 (test system)
FA 1202-1010	pANCA), nuclei of granulocytes (GS-ANA)		methanol-fixed		10 x 10 (test system)
FB 1202-1005					10 x 05 (single slides)
FB 1202-1010					10 x 10 (single slides)
FA 1215-1005-1	DNA-bound lactoferrin (pANCA)	IgG	LFS granulocytes	human	10 x 05 (test system)
FB 1215-1005-1	ANCA negative		HSS granulocytes		10 x 05 (single slides)
			(2 BIOCHIPs per field)		
FA 1221-1005	lymphocyte antigens	IgG	lymphocytes	human	10 x 05 (test system)
FA 1230-1003	thrombocyte antigens	IgG	thrombocytes	human	10 x 03 (test system)
FA 1230-1005					10 x 05 (test system)
FA 1230-1010					10 x 10 (test system)
FB 1230-1005					10 x 05 (single slides)
FB 1230-1010					10 x 10 (single slides)
FA 1250-1003	renal glomeruli (GBM)	IgG	kidney	monkey	10 x 03 (test system)
FA 1250-1005	and renal tubuli				10 x 05 (test system)
FA 1250-1010					10 x 10 (test system)
FB 1250-1003					10 x 03 (single slides)
FB 1250-1005					10 x 05 (single slides)
FB 1250-1010					10 x 10 (single slides)
FA 1250-1005-1	EUROPLUS	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1250-1010-1	kidney glomeruli and tubuli		kidney	monkey	10 x 10 (test system)
FB 1250-1003-1	glomerular basement membrane (GBM)		GBM BIOCHIPs		10 x 03 (single slides)
FB 1250-1005-1					10 x 05 (single slides)
FB 1250-1010-1					10 x 10 (single slides)
FA 1254-1003-1	Membranous Nephropathy Mosaic 1	IgG	3 BIOCHIPs per field:		10 x 03 (test system)
FA 1254-1005-1	phospholipase A2 receptor (PLA2R)		transfected cells	EU 90	10 x 05 (test system)
FA 1254-1010-1	Thrombospondin type-1 domain-containing		transfected cells	EU 90	10 x 10 (test system)
FB 1254-1005-1	protein 7A (THSD7A)		control transfection	EU 90	10 x 05 (single slides)
FB 1254-1010-1					10 x 10 (single slides)

Diagnostics for Indirect Immunofluorescence: Organ-Specific Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1254-1003-50 **FA 1254-1005-50** **FA 1254-1010-50** **FB 1254-1003-50** **FB 1254-1005-50** **FB 1254-1010-50**	**phospholipase A2 receptor (PLA2R)**	IgG	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1254-1005-50 **FC 1254-1010-50** **FC 1254-2005-50** **FC 1254-2010-50**	**phospholipase A2 receptor (PLA2R)** **EUROPattern**	IgG PI	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FA 1254-1003-51 **FA 1254-1005-51**	**Thrombospondin type-1 domain-containing protein 7A (THSD7A)**	IgG	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system)
FA 1271-1005-1 **FA 1271-1010-1** **FB 1271-1005-1** **FB 1271-1010-1**	**renal glomeruli (GBM)** **lung alveoli** **(Goodpasture syndrome)**	IgG	kidney lung (2 BIOCHIPs per field)	monkey monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1300-1005 **FA 1300-1010** **FB 1300-1005** **FB 1300-1010**	**liver-specific antigens**	IgG	liver	monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1300-1005-1 **FA 1300-1010-1** **FA 1300-2005-1** **FB 1300-1005-1** **FB 1300-1010-1** **FB 1300-2005-1**	**Liver Mosaic 1** **liver-kidney microsomes (LKM), ANA mitochondria (AMA), LKM**	IgG	2 BIOCHIPs per field: liver kidney	 rat rat	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FA 1300-1005-2 **FA 1300-2005-2** **FB 1300-1005-2** **FB 1300-2005-2**	**Liver Mosaic 2** **liver antigens, cell nuclei (ANA)** **AMA M7, heart antigens** **cell nuclei (ANA)** **LKM, ANA** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	6 BIOCHIPs per field: liver heart HEp-2 cells liver kidney stomach	 monkey monkey human rat rat rat	10 x 05 (test system) 20 x 05 (test system) 10 x 05 (single slides) 20 x 05 (single slides)
FA 1300-1005-3 **FB 1300-1005-3**	**Liver Mosaic 3** **liver antigens, cell nuclei (ANA)** **skeletal muscle** **cell nuclei (ANA)** **LKM, cell nuclei (ANA)** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	6 BIOCHIPs per field: liver musculus iliopsoas HEp-2 cells liver kidney stomach	 monkey monkey human rat rat rat	10 x 05 (test system) 10 x 05 (single slides)
FA 1300-1005-8 **FA 1300-1010-8** **FA 1300-2005-8** **FB 1300-1005-8** **FB 1300-1010-8** **FB 1300-2005-8**	**Liver Mosaic 8** **liver antigens, cell nuclei (ANA)** **F-actin** **cell nuclei (ANA)** **LKM, ANA** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	6 BIOCHIPs per field: liver VSM47 HEp-2 cells liver kidney stomach	 monkey rat human rat rat rat	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FC 1300-1005-8 **FC 1300-1010-8** **FC 1300-2005-8**	**Autoimmune liver diseases Screen 8** **EUROPattern** **liver antigens, cell nuclei (ANA)** **F-actin** **cell nuclei (ANA), EUROPattern** **LKM, ANA** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG PI	6 BIOCHIPs per field: liver VSM47 HEp-2 cells liver kidney stomach	 monkey rat human rat rat rat	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)
FA 1300-1005-9 **FA 1300-1010-9** **FB 1300-1005-9** **FB 1300-1010-9**	**Liver Mosaic 9** **mitochondria (AMA), LKM** **LKM, ANA** **smooth muscles (ASMA)** **F-actin**	IgG	4 BIOCHIPs per field: kidney liver stomach VSM47	 rat rat rat rat	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1300-1005-9	Autoimmune liver diseases Screen 9	IgG PI	4 BIOCHIPs per field:		10 x 05 (test system)
FC 1300-1010-9	EUROPattern				10 x 10 (test system)
FC 1300-2005-9	mitochondria (AMA), LKM		kidney	rat	20 x 05 (test system)
FC 1300-2010-9	LKM, ANA		liver	rat	20 x 10 (test system)
	smooth muscles (ASMA)		stomach	rat	
	F-actin		VSM47	rat	
FA 1300-1005-21	Liver Sreen 1	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1300-1010-21	mitochondria (AMA), LKM		kidney	rat	10 x 10 (test system)
	soluble liver antigen/		transfected cells	EU 90	
	liver-pancreas antigen (SLA/LP)				
	LKM, ANA		liver	rat	
	smooth muscles (ASMA)		stomach	rat	
FA 1302-1005-50	soluble liver antigen/	IgG	transfected cells	EU 90	10 x 05 (test system)
FA 1302-1010-50	liver-pancreas antigen (SLA/LP)		control transfection	EU 90	10 x 10 (test system)
			(2 BIOCHIPs per field)		
FA 1360-1005	parietal cells	IgG	stomach	monkey	10 x 05 (test system)
FA 1360-1010	(PCA)				10 x 10 (test system)
FA 1360-2005					20 x 05 (test system)
FA 1360-2010					20 x 10 (test system)
FB 1360-1005					10 x 05 (single slides)
FB 1360-1010					10 x 10 (single slides)
FB 1360-2005					20 x 05 (single slides)
FB 1360-2010					20 x 10 (single slides)
FA 1360-1005-1	parietal cells (PCA)	IgG	stomach	monkey	10 x 05 (test system)
FA 1360-1010-1	mitochondria (AMA)		kidney	rat	10 x 10 (test system)
FA 1360-2005-1			(2 BIOCHIPs per field)		20 x 05 (test system)
FB 1360-1005-1					10 x 05 (single slides)
FB 1360-1010-1					10 x 10 (single slides)
FB 1360-2005-1					20 x 05 (single slides)
FA 1362-1005	intrinsic factor	IgG	intrinsic factor BIOCHIPs		10 x 05 (test system)
FB 1362-1005					10 x 05 (single slides)
FA 1362-1003-1	EUROPLUS	IgG	2 BIOCHIPs per field:		10 x 03 (test system)
FA 1362-1005-1	parietal cells (PCA)		stomach	monkey	10 x 05 (test system)
FA 1362-1010-1	intrinsic factor		intrinsic factor BIOCHIPs		10 x 10 (test system)
FA 1362-2005-1					20 x 05 (test system)
FB 1362-1005-1					10 x 05 (single slides)
FB 1362-1010-1					10 x 10 (single slides)
FB 1362-2005-1					20 x 05 (single slides)
FA 1380-1005	intestinal goblet cells	IgAG	intestinal tissue	monkey	10 x 05 (test system)
FB 1380-1003					10 x 03 (single slides)
FB 1380-1005					10 x 05 (single slides)
FA 1381-1003	intestinal goblet cells	IgA/G	goblet cells	EU 80	10 x 03 (test system)
FA 1391-1005-1	Crohn's Disease Mosaic 1	IgA/G	3 BIOCHIPs per field:		10 x 05 (test system)
FA 1391-1010-1	pancreas antigen rPAg1 (CUZD1)		transfected cells	EU 90	10 x 10 (test system)
FB 1391-1005-1	pancreas antigen rPAg2 (GP2)		transfected cells	EU 90	10 x 05 (single slides)
FB 1391-1010-1			control transfection	EU 90	10 x 10 (single slides)
FA 1391-1005-2	Crohn's Disease Mosaic 2	IgA/G	2 BIOCHIPs per field:		10 x 05 (test system)
	pancreas ag rPAg1(CUZD1) / rPAg2(GP2)		transfected cells	EU 90	
			control transfection	EU 90	
FA 1391-1005-3	CIBD Screen 3	IgA/G	3 BIOCHIPs per field:		10 x 05 (test system)
FB 1391-1005-3	pancreas ag rPAg1(CUZD1) / rPAg2(GP2)		transfected cells	EU 90	10 x 05 (single slides)
	intestinal goblet cells		goblet cells	EU 80	
			control transfection	EU 90	

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1391-1003-4 **FA 1391-1005-4** **FB 1391-1005-4**	**CIBD Profile 3** **upper row:** **pancreas ag rPAg1(CUZD1) / rPAg2(GP2)** **intestinal goblet cells** **pANCA** **DNA-bound lactoferrin (pANCA)** **ANCA negative** **bottom row:** **Saccharomyces cerevisiae** **format 1003: slides with 3 patient profiles** **format 1005: slides with 5 patient profiles**	IgA/G	 transfected cells control transfection goblet cells granulocytes (EOH) LFS granulocytes HSS granulocytes fungal smear	 EU 90 EU 90 EU 80 human human human S. cerevisiae	10 x 03 (test system) 10 x 05 (test system) 10 x 05 (single slides)
FA 1391-1005-6 **FB 1391-1005-6**	**CIBD Screen 6** **pancreas ag rPAg1(CUZD1) / rPAg2(GP2)** **intestinal goblet cells** **Saccharomyces cerevisiae** **cANCA, pANCA, GS-ANA**	IgA/G	5 BIOCHIPs per field: transfected cells goblet cells fungal smear granulocytes (EOH) control transfection	 EU 90 EU 80 S. cerevisiae human EU 90	10 x 05 (test system) 10 x 05 (single slides)
FA 1391-1003-7 **FA 1391-1005-7** **FB 1391-1005-7**	**CIBD Profile 7** **upper row:** **pancreas ag rPAg1(CUZD1) / rPAg2(GP2)** **intestinal goblet cells** **pANCA** **bottom row:** **Saccharomyces cerevisiae** **format 1003: slides with 3 patient profiles** **format 1005: slides with 5 patient profiles**	IgA/G	 transfected cells goblet cells granulocytes (EOH) control transfection fungal smear	 EU 90 EU 80 human EU 90 S. cerevisiae	10 x 03 (test system) 10 x 05 (test system) 10 x 05 (single slides)
FA 1420-1005 **FB 1420-1005**	**parotid gland excretory ducts** **and acini**	IgG	parotid gland	monkey	10 x 05 (test system) 10 x 05 (single slides)
FA 1430-1005 **FB 1430-1003** **FB 1430-1005**	**skeletal muscle**	IgG	musculus iliopsoas	monkey	10 x 05 (test system) 10 x 03 (single slides) 10 x 05 (single slides)
FA 1430-1003-1 **FA 1430-1005-1** **FB 1430-1003-1** **FB 1430-1005-1**	**Mosaic Heart Muscle/Skeletal Muscle** **heart muscle** **skeletal muscle**	IgG	2 BIOCHIPs per field: heart musculus iliopsoas	 monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 03 (single slides) 10 x 05 (single slides)
FA 1439-1003-1 **FA 1439-1005-1** **FB 1439-1005-1**	**Anti-VGKC-Ass. Proteins Mosaic 1** **leucine-rich glioma-inact. prot. 1 (LGI1)** **contactin-associated protein 2 (CASPR2)**	IgG	3 BIOCHIPs per field: transfected cells transfected cells control transfection	 EU 90 EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 05 (single slides)
FC 1439-1003-1 **FC 1439-1005-1** **FW1439-1003-1** **FW1439-1005-1**	**Anti-VGKC-Ass. Proteins Mosaic 1 EUROPattern** **leucine-rich glioma-inact. prot. 1 (LGI1)** **contactin-associated protein 2 (CASPR2)**	IgG PI	3 BIOCHIPs per field: transfected cells transfected cells control transfection	 EU 90 EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 03 (single slides) 10 x 05 (single slides)
FA 1461-1003 **FA 1461-1005** **FA 1461-2005** **FB 1461-1005** **FB 1461-2005**	**heart muscle**	IgG	heart	monkey	10 x 03 (test system) 10 x 05 (test system) 20 x 05 (test system) 10 x 05 (single slides) 20 x 05 (single slides)
FA 1495-1005-1	**desmoglein 1** **desmoglein 3**	IgG	transfected cells transfected cells control transfection (3 BIOCHIPs per field)	EU 90 EU 90 EU 90	10 x 05 (test system)

Diagnostics for Indirect Immunofluorescence: Organ-Specific Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1501-1003 FA 1501-1005 FA 1501-1010 FA 1501-2005 FB 1501-1005 FB 1501-1010 FB 1501-2005	**epidermis: prickle cell desmosomes epidermal basement membrane**	IgG	oesophagus	monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FC 1501-1005 FC 1501-1010 FC 1501-2005	**Dermatology Screen (EM) EUROPattern epidermis: prickle cell desmosomes epidermal basement membrane**	IgG+IgG4	oesophagus	monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system)
FA 1501-1005-1 FA 1501-1010-1 FB 1501-1005-1 FB 1501-1010-1	**epidermis epidermis**	IgG	oesophagus tongue (2 BIOCHIPs per field)	monkey monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1501-1003-1 FC 1501-1005-1 FC 1501-1010-1	**Dermatology Screen 1 EUROPattern epidermis epidermis**	IgG+IgG4	2 BIOCHIPs per field: oesophagus tongue	 monkey monkey	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system)
FA 1501-1003-7 FA 1501-1005-7 FA 1501-1010-7 FB 1501-1003-7 FB 1501-1005-7 FB 1501-1010-7	**Dermatology Mosaic 7 epidermis pemphigoid antigens BP230gC desmoglein 1 desmoglein 3 BP180-NC16A-4X**	IgG	6 BIOCHIPs per field: oesophagus salt-split skin transfected cells transfected cells transfected cells BP180-NC16A-4X BIOCHIPs	 monkey monkey EU 90 EU 90 EU 90	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 03 (single slides) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1501-1005-11	**Dermatology Mosaic 11 epidermis pemphigoid antigens transitional epithelium desmoglein 1 desmoglein 3 BP230gC BP180-NC16A-4X gliadin (GAF-3X) cell nuclei (ANA) endomysium**	IgG	11 BIOCHIPs per field: oesophagus salt-split skin bladder mucosa transfected cells transfected cells transfected cells control transfection BP180-NC16A-4X BIOCHIPs gliadin (GAF-3X) BIOCHIPs HEp-2 cells liver	 monkey monkey rat EU 90 EU 90 EU 90 EU 90 human monkey	10 x 05 (test system)
FA 1501-1005-20 FA 1501-1010-20 FA 1501-2005-20 FB 1501-1005-20 FB 1501-1010-20 FB 1501-2005-20	**Dermatology Mosaic 20 epidermis pemphigoid antigens**	IgG	2 BIOCHIPs per field: oesophagus salt-split skin	 monkey monkey	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FC 1501-1010-20 FC 1501-2005-20 FC 1501-2010-20	**Dermatology Mosaic 20 EUROPattern epidermis pemphigoid antigens**	IgG+IgG4	2 BIOCHIPs per field: oesophagus salt-split skin	 monkey monkey	10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)
FA 1502-1005	**epidermis: prickle cell desmosomes epidermal basement membrane**	IgG	tongue	monkey	10 x 05 (test system)
FA 1503-1005 FB 1503-1005	**keratin (filaggrin, RA keratin)**	IgG	oesophagus	rat	10 x 05 (test system) 10 x 05 (single slides)
FA 1507-1005 FB 1507-1005	**transitional epithelium (detection of paraneoplastic pemphigus)**	IgG	bladder mucosa	rat	10 x 05 (test system) 10 x 05 (single slides)
FA 150b-1005 FA 150b-1010 FB 150b-1005 FB 150b-1010	**pemphigoid antigens**	IgG	salt-split skin	monkey	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1510-1005-1	**cell nuclei**	IgG	HEp-2 cells	human	10 x 05 (test system)
FA 1510-1010-1	**(ANA global test)**		liver	monkey	10 x 10 (test system)
FA 1510-2005-1			(2 BIOCHIPs per field)		20 x 05 (test system)
FA 1510-2010-1					20 x 10 (test system)
FA 1510-1050-1					10 x 50 (test system)
FA 1510-5010-1					50 x 10 (test system)
FA 1510-0010-1					100 x 10 (test system)
FA 1510-12010-1					120 x 10 (test system)
FA 1510-2450-1					24 x 50 (test system)
FB 1510-1005-1					10 x 05 (single slides)
FB 1510-1010-1					10 x 10 (single slides)
FB 1510-2005-1					20 x 05 (single slides)
FB 1510-2010-1					20 x 10 (single slides)
FB 1510-1050-1					10 x 50 (single slides)
FB 1510-5010-1					50 x 10 (single slides)
FB 1510-0010-1					100 x 10 (single slides)
FC 1510-1005-1	**cell nuclei (ANA) EUROPattern**	IgG PI	HEp-2 cells	human	10 x 05 (test system)
FC 1510-1010-1	**cell nuclei (ANA)**		liver	monkey	10 x 10 (test system)
FC 1510-2005-1			(2 BIOCHIPs per field)		20 x 05 (test system)
FC 1510-2010-1					20 x 10 (test system)
FC 1510-12010-1					120 x 10 (test system)
FC 1510-2450-1					24 x 50 (test system)
FW1510-2010-1					20 x 10 (single slides)
FW1510-1050-1					10 x 50 (single slides)
FA 1510-1005-2	**cell nuclei (ANA)**	IgG	HEp-2 cells	human	10 x 05 (test system)
FA 1510-1010-2	**mitochondria (AMA)**		kidney	rat	10 x 10 (test system)
FB 1510-1005-2			(2 BIOCHIPs per field)		10 x 05 (single slides)
FB 1510-1010-2					10 x 10 (single slides)
FC 1510-1010-2	**ANA Mosaic 2 EUROPattern**	IgG PI	2 BIOCHIPs per field:		10 x 10 (test system)
	cell nuclei (ANA), EUROPattern		HEp-2 cells	human	
	mitochondria (AMA)		kidney	rat	
FA 1510-1005-10	**EUROPLUS ANA Mosaic 10**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1510-1010-10	**cell nuclei (ANA)**		HEp-2 cells	human	10 x 10 (test system)
FB 1510-1005-10	**SS-A + SS-B**		SS-A+SS-B BIOCHIPs		10 x 05 (single slides)
FB 1510-1010-10					10 x 10 (single slides)
FA 1512-1003-1	**cell nuclei**	IgG	HEp-20-10 cells	human	10 x 03 (test system)
FA 1512-1005-1	**(ANA global test)**		liver	monkey	10 x 05 (test system)
FA 1512-1010-1			(2 BIOCHIPs per field)		10 x 10 (test system)
FA 1512-2005-1					20 x 05 (test system)
FA 1512-2010-1					20 x 10 (test system)
FA 1512-1050-1					10 x 50 (test system)
FA 1512-5010-1					50 x 10 (test system)
FA 1512-0010-1					100 x 10 (test system)
FA 1512-12010-1					120 x 10 (test system)
FA 1512-2450-1					24 x 50 (test system)
FB 1512-1005-1					10 x 05 (single slides)
FB 1512-1010-1					10 x 10 (single slides)
FB 1512-2005-1					20 x 05 (single slides)
FB 1512-2010-1					20 x 10 (single slides)
FB 1512-1050-1					10 x 50 (single slides)
FB 1512-5010-1					50 x 10 (single slides)
FB 1512-0010-1					100 x 10 (single slides)
FC 1512-1005-1	**cell nuclei (ANA) EUROPattern**	IgG PI	HEp-20-10 cells	human	10 x 05 (test system)
FC 1512-1010-1	**cell nuclei (ANA)**		liver	monkey	10 x 10 (test system)
FC 1512-2005-1			(2 BIOCHIPs per field)		20 x 05 (test system)
FC 1512-2010-1					20 x 10 (test system)
FC 1512-1050-1					10 x 50 (test system)
FC 1512-12010-1					120 x 10 (test system)
FC 1512-2450-1					24 x 50 (test system)
FW1512-1005-1					10 x 05 (single slides)
FW1512-1010-1					10 x 10 (single slides)
FW1512-2010-1					20 x 10 (single slides)
FW1512-1050-1					10 x 50 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1512-1005-2	**cell nuclei (ANA)**	IgG	HEp-20-10 cells	human	10 x 05 (test system)
FA 1512-1010-2	**mitochondria (AMA)**		kidney	rat	10 x 10 (test system)
FA 1512-1050-2			(2 BIOCHIPs per field)		10 x 50 (test system)
FB 1512-1005-2					10 x 05 (single slides)
FB 1512-1010-2					10 x 10 (single slides)
FB 1512-1050-2					10 x 50 (single slides)
FA 1512-1010-3	**cell nuclei (ANA)**	IgG	HEp-20-10 cells	human	10 x 10 (test system)
FB 1512-1010-3	**cell nuclei (ANA)**		liver	rat	10 x 10 (single slides)
			(2 BIOCHIPs per field)		
FA 1512-1005-10	**EUROPLUS ANA Mosaic 10A**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1512-1010-10	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 10 (test system)
FB 1512-1005-10	**SS-A + SS-B**		SS-A+SS-B BIOCHIPs		10 x 05 (single slides)
FB 1512-1010-10					10 x 10 (single slides)
FA 1512-1005-20	**EUROPLUS ANA Mosaic 20A**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1512-1010-20	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 10 (test system)
FB 1512-1005-20	**cell nuclei (ANA)**		liver	monkey	10 x 05 (single slides)
FB 1512-1010-20	**SS-A + SS-B**		SS-A+SS-B BIOCHIPs		10 x 10 (single slides)
	ribosomal P-proteins + Jo-1		rib. P-prot.+Jo-1 BIOCHIPs		
FA 1512-1005-22	**EUROPLUS ANA Mosaic 22A**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1512-1010-22	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 10 (test system)
FB 1512-1005-22	**cell nuclei (ANA)**		liver	monkey	10 x 05 (single slides)
FB 1512-1010-22	**nRNP/Sm + Sm + SS-A**		nRNP/Sm+Sm+SS-A BIOCHIPs		10 x 10 (single slides)
	SS-B + Scl-70 + Jo-1		SS-B+Scl-70+Jo-1 BIOCHIPs		
FA 1520-1005	**cell nuclei (ANA)**	IgG	HEp-2 cells	human	10 x 05 (test system)
FA 1520-1010					10 x 10 (test system)
FA 1520-2005					20 x 05 (test system)
FA 1520-2010					20 x 10 (test system)
FA 1520-1050					10 x 50 (test system)
FA 1520-5010					50 x 10 (test system)
FA 1520-0010					100 x 10 (test system)
FA 1520-12010					120 x 10 (test system)
FB 1520-1005					10 x 05 (single slides)
FB 1520-1010					10 x 10 (single slides)
FB 1520-2005					20 x 05 (single slides)
FB 1520-2010					20 x 10 (single slides)
FB 1520-1050					10 x 50 (single slides)
FB 1520-5010					50 x 10 (single slides)
FB 1520-0010					100 x 10 (single slides)
FC 1520-1005	**cell nuclei (ANA)**	IgG Pl	HEp-2 cells	human	10 x 05 (test system)
FC 1520-1010	**EUROPattern**				10 x 10 (test system)
FC 1520-2005					20 x 05 (test system)
FC 1520-2010					20 x 10 (test system)
FC 1520-1050					10 x 50 (test system)
FC 1520-12010					120 x 10 (test system)
FW1520-1005					10 x 05 (single slides)
FW1520-1010					10 x 10 (single slides)
FW1520-2005					20 x 05 (single slides)
FW1520-2010					20 x 10 (single slides)
FW1520-1050					10 x 50 (single slides)
FA 1522-1005	**cell nuclei (ANA)**	IgG	HEp-20-10 cells	human	10 x 05 (test system)
FA 1522-1010					10 x 10 (test system)
FA 1522-2005					20 x 05 (test system)
FA 1522-2010					20 x 10 (test system)
FA 1522-5010					50 x 10 (test system)
FA 1522-0010					100 x 10 (test system)
FB 1522-1005					10 x 05 (single slides)
FB 1522-1010					10 x 10 (single slides)
FB 1522-2005					20 x 05 (single slides)
FB 1522-2010					20 x 10 (single slides)
FB 1522-5010					50 x 10 (single slides)
FB 1522-0010					100 x 10 (single slides)

Diagnostics for Indirect Immunofluorescence: Systemic Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1522-1005	**cell nuclei (ANA)**	IgG PI	HEp-20-10 cells	human	10 x 05 (test system)
FC 1522-1010	**EUROPattern**				10 x 10 (test system)
FC 1522-2005					20 x 05 (test system)
FC 1522-2010					20 x 10 (test system)
FC 1522-1050					10 x 50 (test system)
FC 1522-12010					120 x 10 (test system)
FW1522-1005					10 x 05 (single slides)
FW1522-2005					20 x 05 (single slides)
FW1522-2010					20 x 10 (single slides)
FA 1572-1003	**dsDNA**	IgG	flagellates	Crithidia luciliae	10 x 03 (test system)
FA 1572-1005					10 x 05 (test system)
FA 1572-1010					10 x 10 (test system)
FA 1572-2005					20 x 05 (test system)
FA 1572-2010					20 x 10 (test system)
FB 1572-1003					10 x 03 (single slides)
FB 1572-1005					10 x 05 (single slides)
FB 1572-1010					10 x 10 (single slides)
FB 1572-2005					20 x 05 (single slides)
FB 1572-2010					20 x 10 (single slides)
FC 1572-1005	**dsDNA**	IgG EB	flagellates	Crithidia luciliae	10 x 05 (test system)
FC 1572-1010	**EUROPattern**				10 x 10 (test system)
FC 1572-2010					20 x 10 (test system)
FA 1572-1005-1	**dsDNA (sensitive)**	IgG	flagellates	Crithidia luciliae	10 x 05 (test system)
FA 1572-1010-1					10 x 10 (test system)
FA 1572-2005-1					20 x 05 (test system)
FA 1572-2010-1					20 x 10 (test system)
FC 1572-1005-1	**dsDNA (sensitive)**	IgG EB	flagellates	Crithidia luciliae	10 x 05 (test system)
FC 1572-1010-1	**EUROPattern**				10 x 10 (test system)
FC 1572-2010-1					20 x 10 (test system)
FA 1620-1003	**mitochondria (AMA)**	IgG	kidney	rat	10 x 03 (test system)
FA 1620-1005					10 x 05 (test system)
FA 1620-1010					10 x 10 (test system)
FA 1620-2005					20 x 05 (test system)
FA 1620-2010					20 x 10 (test system)
FB 1620-1005					10 x 05 (single slides)
FB 1620-1010					10 x 10 (single slides)
FB 1620-2005					20 x 05 (single slides)
FB 1620-2010					20 x 10 (single slides)
FA 1620-1005-1	**mitochondria (AMA)**	IgG	kidney	rat	10 x 05 (test system)
FA 1620-1010-1	**smooth muscles (ASMA)**		stomach	rat	10 x 10 (test system)
FA 1620-2005-1			(2 BIOCHIPs per field)		20 x 05 (test system)
FA 1620-2010-1					20 x 10 (test system)
FB 1620-1005-1					10 x 05 (single slides)
FB 1620-1010-1					10 x 10 (single slides)
FB 1620-2005-1					20 x 05 (single slides)
FB 1620-2010-1					20 x 10 (single slides)
FC 1620-1003-1	**AMA/ASMA IIFT (KR/SR) EUROPattern**	IgG	2 BIOCHIPs per field:		10 x 03 (test system)
FC 1620-1005-1	**mitochondria (AMA)**		kidney	rat	10 x 05 (test system)
FC 1620-1010-1	**smooth muscles (ASMA)**		stomach	rat	10 x 10 (test system)
FC 1620-2005-1					20 x 05 (test system)
FC 1620-2010-1					20 x 10 (test system)
FA 1620-1005-2	**mitochondria (AMA)**	IgG	kidney	mouse	10 x 05 (test system)
FA 1620-1010-2	**smooth muscles (ASMA)**		stomach	mouse	10 x 10 (test system)
FB 1620-1005-2			(2 BIOCHIPs per field)		10 x 05 (single slides)
FB 1620-1010-2					10 x 10 (single slides)
FA 1620-1005-3	**EUROPLUS**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1620-2005-3	**mitochondria (AMA)**		kidney	rat	20 x 05 (test system)
FB 1620-1005-3	**M2 antigen**		M2 BIOCHIPs		10 x 05 (single slides)
FB 1620-2005-3					20 x 05 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1620-1005-5 **FA 1620-1010-5** **FB 1620-1005-5** **FB 1620-1010-5**	**EUROPLUS** **mitochondria (AMA)** **smooth muscles (ASMA)** **cell nuclei (ANA)** **M2 antigen**	IgG	4 BIOCHIPs per field: kidney stomach HEp-2 cells M2 BIOCHIPs	 rat rat human	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FA 1621-1005 **FB 1621-1005**	**mitochondria (AMA)**	IgG	kidney	mouse	10 x 05 (test system) 10 x 05 (single slides)
FA 1651-1003 **FA 1651-1005** **FA 1651-1010** **FB 1651-1005** **FB 1651-1010**	**F-actin**	IgG	VSM47	rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FC 1651-1003 **FC 1651-1005** **FC 1651-1010**	**F-actin EUROPattern**	IgG PI	VSM47	rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system)
FA 1671-1005-50	**Transcription intermediary factor 1-gamma (TIF1-gamma)**	IgG	transfected cells control transfection (2 BIOCHIPs per field)	EU 90 EU 90	10 x 05 (test system)
FA 1710-1003 **FA 1710-1005** **FA 1710-1010** **FA 1710-2005** **FA 1710-2010** **FB 1710-1005** **FB 1710-1010** **FB 1710-2005** **FB 1710-2010**	**smooth muscles (ASMA)**	IgG	stomach	rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FA 1710-1005-1 **FB 1710-1005-1**	**smooth muscles (ASMA)** **F-actin**	IgG	stomach VSM47 (2 BIOCHIPs per field)	rat rat	10 x 05 (test system) 10 x 05 (single slides)
FA 1711-1005 **FB 1711-1005**	**smooth muscles (ASMA)**	IgG	stomach	mouse	10 x 05 (test system) 10 x 05 (single slides)
FA 1800-1005-1 **FA 1800-1010-1** **FA 1800-2005-1** **FB 1800-1005-1** **FB 1800-1010-1** **FB 1800-2005-1**	**Mosaic Basic Profile 1** **cell nuclei (ANA)** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG	3 BIOCHIPs per field: HEp-2 cells kidney stomach	 human rat rat	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FC 1800-1010-1	**Mosaic Basic Profile 1 EUROPattern** **cell nuclei (ANA), EUROPattern** **mitochondria (AMA)** **smooth muscles (ASMA)**	IgG PI	3 BIOCHIPs per field: HEp-2 cells kidney stomach	 human rat rat	10 x 10 (test system)
FA 1800-1003-2 **FA 1800-1005-2** **FA 1800-1010-2** **FA 1800-2005-2** **FA 1800-2010-2** **FA 1800-12010-2** **FB 1800-1005-2** **FB 1800-1010-2** **FB 1800-2005-2** **FB 1800-2010-2**	**Mosaic Basic Profile 2** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	3 BIOCHIPs per field: liver kidney stomach	 rat rat rat	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system) 120 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides) 20 x 10 (single slides)
FC 1800-1010-2 **FC 1800-2005-2** **FC 1800-2010-2**	**Mosaic Basic Profile 2 EUROPattern** **cell nuclei (ANA), LKM** **mitochondria (AMA), LKM** **smooth muscles (ASMA)**	IgG	3 BIOCHIPs per field: liver kidney stomach	 rat rat rat	10 x 10 (test system) 20 x 05 (test system) 20 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: Systemic Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1800-1003-3	**Mosaic Basic Profile 3**	IgG	4 BIOCHIPs per field:		10 x 03 (test system)
FA 1800-1005-3	**cell nuclei (ANA)**		HEp-2 cells	human	10 x 05 (test system)
FA 1800-1010-3	**cell nuclei (ANA)**		liver	monkey	10 x 10 (test system)
FA 1800-2005-3	**mitochondria (AMA)**		kidney	rat	20 x 05 (test system)
FB 1800-1005-3	**smooth muscles (ASMA)**		stomach	rat	10 x 05 (single slides)
FB 1800-1010-3					10 x 10 (single slides)
FB 1800-2005-3					20 x 05 (single slides)
FC 1800-1010-3	**Mosaic Basic Profile 3 EUROPattern**	IgG PI	4 BIOCHIPs per field:		10 x 10 (test system)
FC 1800-2005-3	**cell nuclei (ANA), EUROPattern**		HEp-2 cells	human	20 x 05 (test system)
FC 1800-2010-3	**cell nuclei (ANA)**		liver	monkey	20 x 10 (test system)
	mitochondria (AMA)		kidney	rat	
	smooth muscles (ASMA)		stomach	rat	
FA 1800-1005-25	**Mosaic Basic Profile 25**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1800-1010-25	**cell nuclei (ANA), LKM**		liver	rat	10 x 10 (test system)
FA 1800-2005-25	**cell nuclei (ANA)**		liver	monkey	20 x 05 (test system)
FB 1800-1005-25	**mitochondria (AMA), LKM**		kidney	rat	10 x 05 (single slides)
FB 1800-1010-25	**smooth muscles (ASMA)**		stomach	rat	10 x 10 (single slides)
FB 1800-2005-25					20 x 05 (single slides)
FA 1802-1005-1	**Mosaic Basic Profile 1A**	IgG	3 BIOCHIPs per field:		10 x 05 (test system)
FB 1802-1005-1	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 05 (single slides)
	mitochondria (AMA)		kidney	rat	
	smooth muscles (ASMA)		stomach	rat	
FA 1802-1003-3	**Mosaic Basic Profile 3A**	IgG	4 BIOCHIPs per field:		10 x 03 (test system)
FA 1802-1005-3	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 05 (test system)
FA 1802-1010-3	**cell nuclei (ANA)**		liver	monkey	10 x 10 (test system)
FA 1802-2005-3	**mitochondria (AMA)**		kidney	rat	20 x 05 (test system)
FA 1802-2010-3	**smooth muscles (ASMA)**		stomach	rat	20 x 10 (test system)
FB 1802-1005-3					10 x 05 (single slides)
FB 1802-1010-3					10 x 10 (single slides)
FB 1802-2005-3					20 x 05 (single slides)
FB 1802-2010-3					20 x 10 (single slides)
FC 1802-1003-3	**Mosaic Basic Profile 3A EUROPattern**	IgG PI	4 BIOCHIPs per field:		10 x 03 (test system)
FC 1802-1005-3	**cell nuclei (ANA) EUROPattern**		HEp-20-10 cells	human	10 x 05 (test system)
FC 1802-1010-3	**cell nuclei (ANA)**		liver	monkey	10 x 10 (test system)
FC 1802-2005-3	**mitochondria (AMA)**		kidney	rat	20 x 05 (test system)
FC 1802-2010-3	**smooth muscles (ASMA)**		stomach	rat	20 x 10 (test system)
FA 1802-1010-23	**Mosaic Basic Profile 23A**	IgG	4 BIOCHIPs per field:		10 x 10 (test system)
FB 1802-1010-23	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 10 (single slides)
	cell nuclei (ANA)		liver	monkey	
	mitochondria (AMA)		kidney	mouse	
	smooth muscles (ASMA)		stomach	mouse	
FA 1805-1005-13	**Mosaic Basic Profile 13B**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1805-1010-13	**cell nuclei (ANA)**		HEp-2 cells	human	10 x 10 (test system)
FA 1805-2005-13	**cell nuclei (ANA), LKM**		liver	rat	20 x 05 (test system)
FB 1805-1005-13	**mitochondria (AMA), LKM**		kidney	rat	10 x 05 (single slides)
FB 1805-1010-13	**smooth muscles (ASMA)**		stomach	rat	10 x 10 (single slides)
FB 1805-2005-13					20 x 05 (single slides)
FC 1805-1010-13	**Mosaic Basic Profile 13B EUROPattern**	IgG PI	4 BIOCHIPs per field:		10 x 10 (test system)
FC 1805-2010-13	**cell nuclei (ANA), EUROPattern**		HEp-2 cells	human	20 x 10 (test system)
	cell nuclei (ANA), LKM		liver	rat	
	mitochondria (AMA), LKM		kidney	rat	
	smooth muscles (ASMA)		stomach	rat	
FA 1812-1005-3	**Mosaic Basic Profile 3C**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FA 1812-1010-3	**cell nuclei (ANA)**		HEp-20-10 cells	human	10 x 10 (test system)
FA 1812-2005-3	**cell nuclei (ANA), LKM**		liver	rat	20 x 05 (test system)
FA 1812-0010-3	**mitochondria (AMA), LKM**		kidney	rat	100 x 10 (test system)
FB 1812-1005-3	**smooth muscles (ASMA)**		stomach	rat	10 x 05 (single slides)
FB 1812-1010-3					10 x 10 (single slides)
FB 1812-2005-3					20 x 05 (single slides)
FB 1812-0010-3					100 x 10 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FC 1812-1003-3	Mosaic Basic Profile 3C EUROPattern	IgG PI	4 BIOCHIPs per field:		10 x 03 (test system)
FC 1812-1005-3	cell nuclei (ANA), EUROPattern		HEp-20-10 cells	human	10 x 05 (test system)
FC 1812-1010-3	cell nuclei (ANA), LKM		liver	rat	10 x 10 (test system)
FC 1812-2005-3	mitochondria (AMA), LKM		kidney	rat	20 x 05 (test system)
FC 1812-0010-3	smooth muscles (ASMA)		stomach	rat	100 x 10 (test system)
FW1812-2005-3					20 x 05 (single slides)
FA 1911-1003 A	endomysium	IgA	oesophagus	monkey	10 x 03 (test system)
FA 1911-1005 A					10 x 05 (test system)
FA 1911-1010 A					10 x 10 (test system)
FA 1911-2005 A					20 x 05 (test system)
FA 1911-2010 A					20 x 10 (test system)
FA 1911-0010 A					100 x 10 (test system)
FA 1911-1005 G		IgGpa			10 x 05 (test system)
FA 1911-1010 G					10 x 10 (test system)
FB 1911-1005 A		IgA			10 x 05 (single slides)
FB 1911-1010 A					10 x 10 (single slides)
FB 1911-2005 A					20 x 05 (single slides)
FB 1911-2010 A					20 x 10 (single slides)
FB 1911-0010 A					100 x 10 (single slides)
FB 1911-1005 G		IgGpa			10 x 05 (single slides)
FB 1911-1010 G					10 x 10 (single slides)
FC 1911-1005 A	Coeliac Disease Screen (EM) EUROPattern	IgA			10 x 05 (test system)
FC 1911-1010 A	endomysium		oesophagus	monkey	10 x 10 (test system)
FC 1911-2005 A					20 x 05 (test system)
FC 1911-2010 A					20 x 10 (test system)
FC 1911-0010 A					100 x 10 (test system)
FC 1911-1005 G		IgGpa			10 x 05 (test system)
FC 1911-1010 G					10 x 10 (test system)
FC 1911-2010 G					20 x 10 (test system)
FW1911-2005 A		IgA			20 x 05 (single slides)
FA 1911-1005-1 A	EUROPLUS	IgA	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1911-1010-1 A	endomysium		oesophagus	monkey	10 x 10 (test system)
FA 1911-1005-1 G	gliadin (GAF-3X)	IgGpa	gliadin (GAF-3X) BIOCHIPs		10 x 05 (test system)
FB 1911-1005-1 A		IgA			10 x 05 (single slides)
FB 1911-1010-1 A					10 x 10 (single slides)
FB 1911-1005-1 G		IgGpa			10 x 05 (single slides)
FA 1913-1003 A	endomysium	IgA	small intestine	monkey	10 x 03 (test system)
FA 1913-1005 A					10 x 05 (test system)
FA 1913-1010 A					10 x 10 (test system)
FA 1913-2005 A					20 x 05 (test system)
FA 1913-1005 G		IgGpa			10 x 05 (test system)
FB 1913-1005 A		IgA			10 x 05 (single slides)
FB 1913-1010 A					10 x 10 (single slides)
FB 1913-2005 A					20 x 05 (single slides)
FB 1913-1005 G		IgGpa			10 x 05 (single slides)
FA 1913-1005-1 A	EUROPLUS	IgA	2 BIOCHIPs per field:		10 x 05 (test system)
FA 1913-1010-1 A	endomysium		small intestine	monkey	10 x 10 (test system)
FA 1913-2005-1 A	gliadin (GAF-3X)		gliadin (GAF-3X) BIOCHIPs		20 x 05 (test system)
FA 1913-1005-1 G		IgGpa			10 x 05 (test system)
FB 1913-1005-1 A		IgA			10 x 05 (single slides)
FB 1913-1010-1 A					10 x 10 (single slides)
FB 1913-2005-1 A					20 x 05 (single slides)
FB 1913-1005-1 G		IgGpa			10 x 05 (single slides)
FA 1913-1005-2 A	endomysium	IgA	small intestine	monkey	10 x 05 (test system)
FA 1913-1010-2 A	endomysium		oesophagus	monkey	10 x 10 (test system)
FA 1913-1005-2 G		IgGpa	(2 BIOCHIPs per field)		10 x 05 (test system)
FB 1913-1005-2 A		IgA			10 x 05 (single slides)
FB 1913-1010-2 A					10 x 10 (single slides)
FB 1913-1005-2 G		IgGpa			10 x 05 (single slides)
FA 1913-1010-6 A	EUROPLUS	IgA	4 BIOCHIPs per field:		10 x 10 (test system)
FA 1913-1010-6 G	endomysium	IgGpa	small intestine	monkey	10 x 10 (test system)
FB 1913-1010-6 A	gliadin (GAF-3X)	IgA	gliadin (GAF-3X) BIOCHIPs		10 x 10 (single slides)
FB 1913-1010-6 G	endomysium	IgGpa	oesophagus	monkey	10 x 10 (single slides)
	endomysium		liver	monkey	

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1913-1005-7 A	**endomysium**	IgA	small intestine	monkey	10 x 05 (test system)
FA 1913-1010-7 A	**endomysium**		oesophagus	monkey	10 x 10 (test system)
FA 1913-2005-7 A	**endomysium**		liver	monkey	20 x 05 (test system)
FA 1913-2010-7 A			(3 BIOCHIPs per field)		20 x 10 (test system)
FA 1913-1005-7 G		IgGpa			10 x 05 (test system)
FA 1913-1010-7 G					10 x 10 (test system)
FA 1913-2005-7 G					20 x 05 (test system)
FA 1913-2010-7 G					20 x 10 (test system)
FB 1913-1005-7 A		IgA			10 x 05 (single slides)
FB 1913-1010-7 A					10 x 10 (single slides)
FB 1913-2005-7 A					20 x 05 (single slides)
FB 1913-2010-7 A					20 x 10 (single slides)
FB 1913-1005-7 G		IgGpa			10 x 05 (single slides)
FB 1913-1010-7 G					10 x 10 (single slides)
FB 1913-2005-7 G					20 x 05 (single slides)
FB 1913-2010-7 G					20 x 10 (single slides)
FA 1914-1005 A	**endomysium**	IgA	liver	monkey	10 x 05 (test system)
FA 1914-1010 A					10 x 10 (test system)
FA 1914-2005 A					20 x 05 (test system)
FA 1914-2010 A					20 x 10 (test system)
FA 1914-12010 A					120 x 10 (test system)
FA 1914-1005 G		IgGpa			10 x 05 (test system)
FA 1914-1010 G					10 x 10 (test system)
FA 1914-2005 G					20 x 05 (test system)
FA 1914-12010 G					120 x 10 (test system)
FB 1914-1005 A		IgA			10 x 05 (single slides)
FB 1914-1010 A					10 x 10 (single slides)
FB 1914-2005 A					20 x 05 (single slides)
FB 1914-2010 A					20 x 10 (single slides)
FB 1914-1005 G		IgGpa			10 x 05 (single slides)
FB 1914-1010 G					10 x 10 (single slides)
FB 1914-2005 G					20 x 05 (single slides)
FC 1914-1005 A	**Coeliac Disease Screen (LM) EUROPattern**	IgA	liver	monkey	10 x 05 (test system)
FC 1914-1010 A	**endomysium**				10 x 10 (test system)
FC 1914-2005 A					20 x 05 (test system)
FC 1914-2010 A					20 x 10 (test system)
FC 1914-1005 G		IgGpa			10 x 05 (test system)
FC 1914-1010 G					10 x 10 (test system)
FC 1914-2005 G					20 x 05 (test system)
FA 1914-1003-1 A	**EUROPLUS**	IgA	2 BIOCHIPs per field:		10 x 03 (test system)
FA 1914-1005-1 A	**endomysium**		liver	monkey	10 x 05 (test system)
FA 1914-1010-1 A	**gliadin (GAF-3X)**		gliadin (GAF-3X) BIOCHIPs		10 x 10 (test system)
FA 1914-2005-1 A					20 x 05 (test system)
FA 1914-1003-1 G		IgGpa			10 x 03 (test system)
FA 1914-1005-1 G					10 x 05 (test system)
FA 1914-1010-1 G					10 x 10 (test system)
FA 1914-2005-1 G					20 x 05 (test system)
FB 1914-1005-1 A		IgA			10 x 05 (single slides)
FB 1914-1010-1 A					10 x 10 (single slides)
FB 1914-2005-1 A					20 x 05 (single slides)
FB 1914-1005-1 G		IgGpa			10 x 05 (single slides)
FB 1914-1010-1 G					10 x 10 (single slides)
FB 1914-2005-1 G					20 x 05 (single slides)
FA 1914-1005-2 A	**endomysium**	IgA	liver	monkey	10 x 05 (test system)
FA 1914-1010-2 A	**endomysium**		small intestine	monkey	10 x 10 (test system)
FA 1914-2005-2 A			(2 BIOCHIPs per field)		20 x 05 (test system)
FA 1914-1005-2 G		IgGpa			10 x 05 (test system)
FB 1914-1005-2 A		IgA			10 x 05 (single slides)
FB 1914-1010-2 A					10 x 10 (single slides)
FB 1914-2005-2 A					20 x 05 (single slides)
FB 1914-1005-2 G		IgGpa			10 x 05 (single slides)

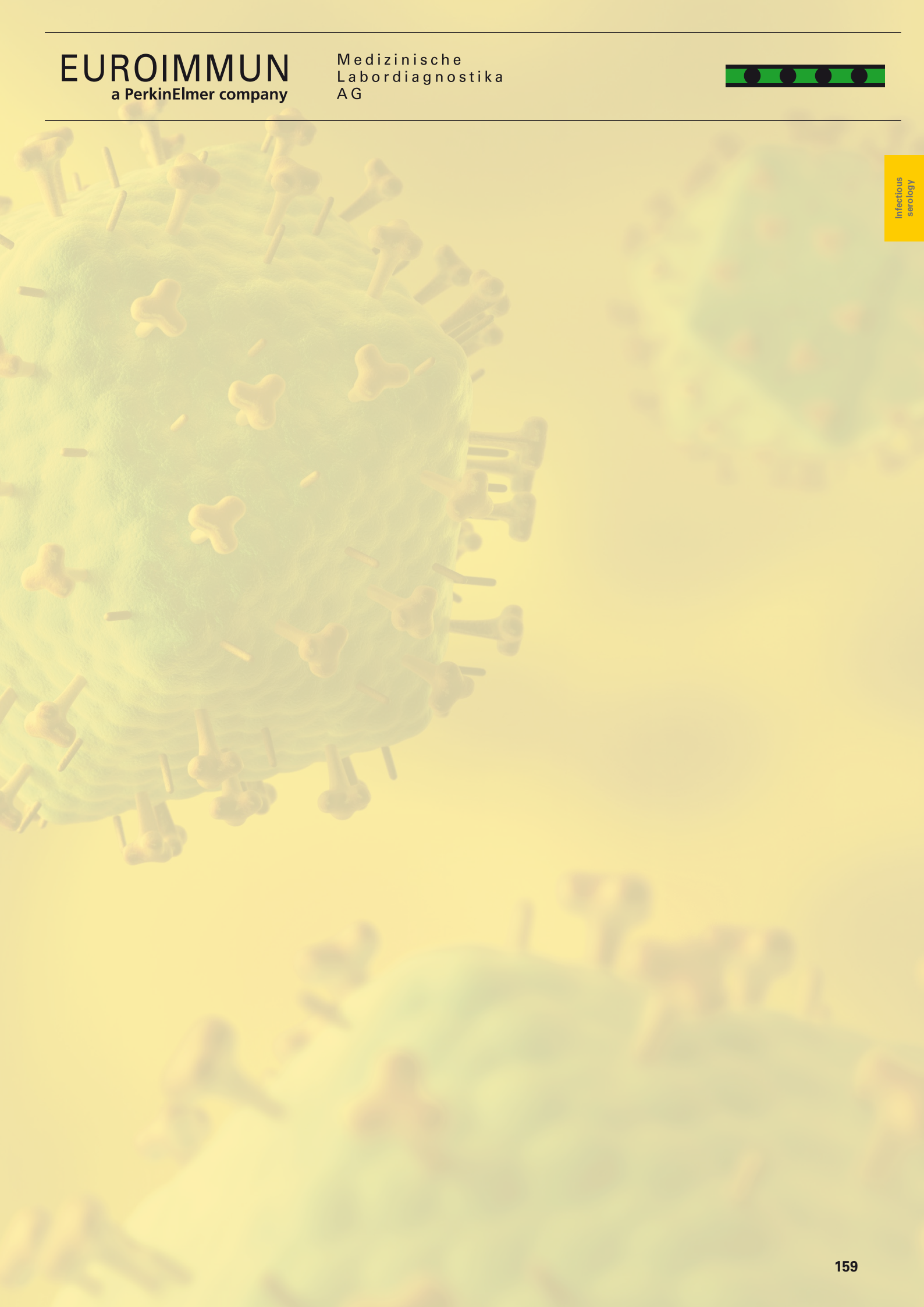
Diagnostics for Indirect Immunofluorescence: Systemic Autoantibodies

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FA 1914-1005-3 A	**EUROPLUS**	IgA	3 BIOCHIPs per field:		10 x 05 (test system)
FA 1914-1010-3 A	**endomysium**		liver	monkey	10 x 10 (test system)
FA 1914-2005-3 A	**endomysium**		small intestine	monkey	20 x 05 (test system)
FA 1914-1005-3 G	**gliadin (GAF-3X)**	IgGpa	gliadin (GAF-3X) BIOCHIPs		10 x 05 (test system)
FB 1914-1005-3 A		IgA			10 x 05 (single slides)
FB 1914-1010-3 A					10 x 10 (single slides)
FB 1914-2005-3 A					20 x 05 (single slides)
FB 1914-1005-3 G		IgGpa			10 x 05 (single slides)
FA 1919-1010 A	**endomysium**	IgA	umbilical cord	human	10 x 10 (test system)
FB 1919-1010 A					10 x 10 (single slides)
FA 1947-1003-50	**collagen type VII NC1**	IgG	transfected cells	EU 90	10 x 03 (test system)
FA 1947-1005-50			control transfection (2 BIOCHIPs per field)	EU 90	10 x 05 (test system)
FA 1960-1003	**endothelial cells**	IgG	HUVEC	human	10 x 03 (test system)
FA 1960-1005					10 x 05 (test system)
FA 1960-1010					10 x 10 (test system)
FB 1960-1005					10 x 05 (single slides)
FB 1960-1010					10 x 10 (single slides)
FA 1960-1003-2	**endothelial cells**	IgG	musculus iliopsoas	monkey	10 x 03 (test system)
FA 1960-1005-2	**endothelial cells**		HUVEC	human	10 x 05 (test system)
FB 1960-1005-2			(2 BIOCHIPs per field)		10 x 05 (single slides)

Diagnostics for Indirect Immunofluorescence: Further Antigens

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FV 2841-1005 A	**Saccharomyces cerevisiae**	IgA	fungal smear	Saccharomyces cerevisiae	10 x 05 (test system)
FV 2841-1010 A					10 x 10 (test system)
FV 2841-2005 A					20 x 05 (test system)
FV 2841-1005 G		IgG			10 x 05 (test system)
FV 2841-1010 G					10 x 10 (test system)
FV 2841-2005 G					20 x 05 (test system)
FX 2841-1005					10 x 05 (single slides)
FX 2841-1010					10 x 10 (single slides)
FX 2841-2005					20 x 05 (single slides)
FV 3011-1005 A	**gliadin (GAF-3X)**	IgA	gliadin (GAF-3X) BIOCHIPs		10 x 05 (test system)
FV 3011-1010 A					10 x 10 (test system)
FV 3011-1005 G		IgG			10 x 05 (test system)
FV 3011-1010 G					10 x 10 (test system)
FX 3011-1005					10 x 05 (single slides)
FX 3011-1010					10 x 10 (single slides)

Infection diagnostics



Bacteria

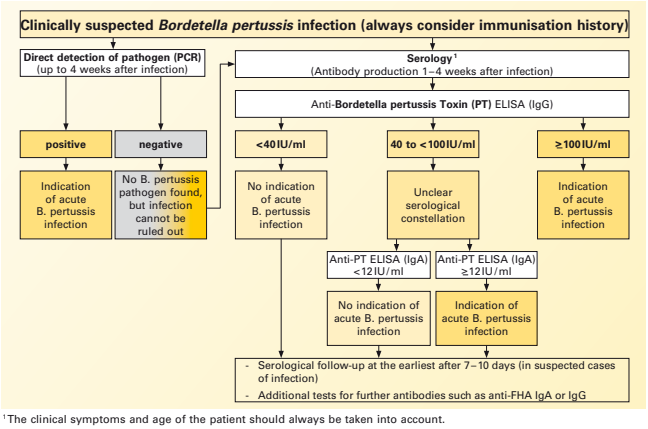
Bordetella · Borrelia · Treponema · Chlamydia

For more information on this subject scan the QR code or enter the Quick Link code q008 at www.euroimmun.com

Bordetella

Clinical information: Bordetella pertussis is the causative agent of whooping cough, a disease with 3 stages: 1. Catarrhal stage: mild flu-like symptoms; lasting 1 to 2 weeks; 2. Paroxysmal stage: fits of (staccato-like) coughing spasms with "whooping" sound when inhaling; lasting 2 to 3 weeks; 3. Convalescent stage: slow convalescence, which can take up to several months. Complications such as secondary pneumonia or otitis media are possible, especially in children under the age of 2 years. The disease is known in adults, but is rarely diagnosed, even though coughing adults can infect their surroundings. An infection confers specific immunity, which reduces after several years. The clinical progression of whooping cough depends mainly on the production of the different virulence factors (adhesins and toxins), such as filamentous haemagglutinin (FHA) or pertussis toxin (PT). PT is the only antigen that is exclusively produced by B. pertussis. FHA is found in all other Bordetella species and also in other bacteria.

Diagnostics: The method of detection for the diagnosis of Bordetella infection depends on the disease stage. Direct detection of the pathogen (culture, PCR) is particularly useful in the early stages of infection. Since the pathogen is often no longer detectable after around four weeks following infection, serology gains importance as the disease proceeds. Pathogen-specific antibodies of classes IgA and IgG can generally be detected from the paroxysmal stage. For antibody detection, international reference laboratories recommend test systems that are based on individual purified antigens. The use of antigen mixtures of PT and FHA is obsolete. The quantification of antibody titers should be performed in international units (IU/ml) according to the 1st International Standard of the WHO (1st IS NIBSC Code 06/140). The detection of anti-PT IgG is of particular importance for specific diagnosis of B. pertussis infection. A titer of ≥100 IU/ml is considered a clear indicator of B. pertussis infection. If the anti-PT IgG titer is below 40 IU/ml, acute B. pertussis infection is unlikely. In cases of unclear serological anti-PT IgG titers of between ≥40 and <100 IU/ml the investigation of further antibodies such as anti-PT IgA, anti-FHA IgG or IgA can provide additional information. Diagnosis can be confirmed if a significant change in the antibody concentration is found in two consecutive samples. It should be taken into account that a positive antibody result up to one year after vaccination is not a reliable indicator of acute infection.



[1] The clinical symptoms and age of the patient should always be taken into account.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Highly purified pertussis toxin, PT	IgG ELISA: Most important serological test; specific for B. pertussis; exclusion of B. parapertussis infections; quantification in IU/ml; interpretation according to 40/100 IU/ml limits	EI 2050-9601 G	194
	Highly purified pertussis toxin, PT	PT IgA; FHA IgA/G ELISA: useful for ambiguous anti-PT IgG titers in the range of ≥40 to <100 IU/ml; quantification in IU/ml	EI 2050-9601 A	194
	Highly purified filamentous haemagglutinin, FHA		EI 2050-9601-3 A/G	194
Blot	PT, FHA, ACT (adenylate cyclase toxin)	Additional qualitative test; antibodies against ACT can indicate a natural infection (ACT is currently not contained in acellular vaccines)	DN 2050-#### A/G	191

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q059 at www.euroimmun.com

Bacteria

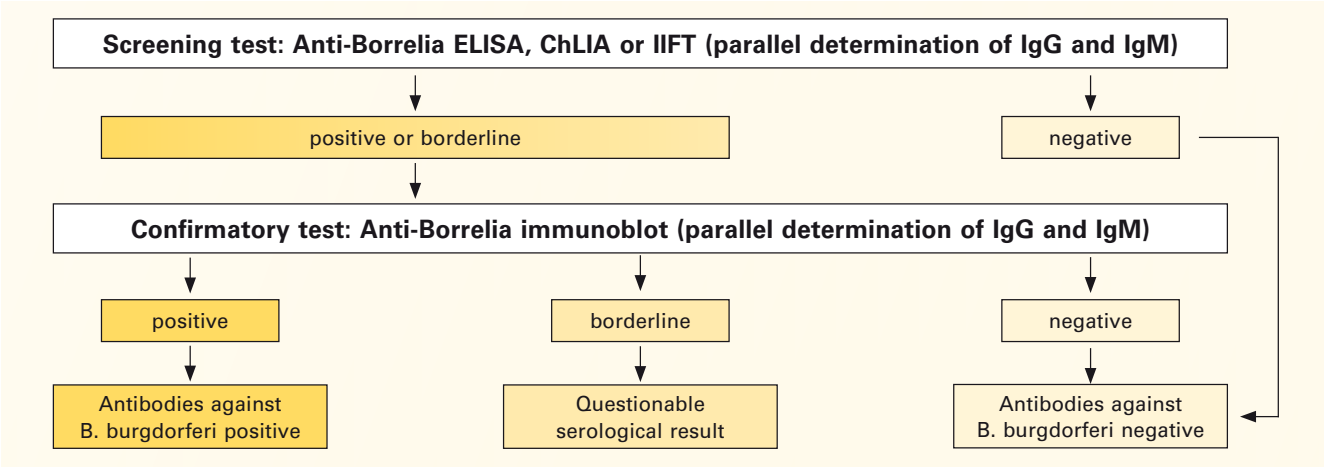
Bordetella · Borrelia · Treponema · Chlamydia

For more information on this subject scan the QR code or enter the Quick Link code q009 at www.euroimmun.com

Borrelia

Clinical information: Borrelia is the causative agent of Lyme borreliosis, a bacterial disease which is transmitted through bites from ticks of the genus Ixodes and is characterised by a variety of clinical symptoms. The most important human pathogenic Borrelia genospecies are B. afzelii, B. burgdorferi and B. garinii. Lyme borreliosis can manifest itself dermatologically, neurologically or through internal disorders. The radially spreading erythema migrans is a characteristic early symptom, which occurs a few days to several weeks after the infection. This is often accompanied by influenza-like general symptoms, such as fever, shivering, headaches and vomiting. The advanced stage of the disease is characterised by neurological (e.g. facial paresis), cardiac (e.g. myocarditis) and rheumatological (e.g. arthritis) manifestations. In chronic Lyme borreliosis involvement of the joints, epidermis (acrodermatitis chronica atrophicans) and central nervous system as well as fatigue are typically found.

Diagnostics: The diagnosis of Lyme disease is based on the patient anamnesis, clinical findings and the detection of antibodies against Borrelia antigens. For the serological diagnosis of anti-Borrelia-specific antibodies, the German Association for Hygiene and Microbiology (DGHM), the Robert Koch Institute and the CDC (Atlanta, Georgia) call for a two-stage strategy. Firstly, a sensitive screening test (ELISA, ChLIA or IIFT) is performed. Sera with a positive or borderline screening result are investigated further using an immunoblot to differentiate between Borrelia-specific and unspecific reactions. Since antibodies against Borrelia are first produced 2 to 6 weeks after infection, serological tests performed in the early stage of Lyme borreliosis can be negative. Early antibiotic treatment may also prevent antibody production. In suspected cases of neuroborreliosis, the presence of intrathecal synthesis of Borrelia-specific antibodies can be investigated by parallel analysis of a CSF/serum sample.



Product overview

Method	Substrate	Application	Order number	Page
ELISA	Whole antigen, detergent extract of B. burgdorferi, B. garinii and B. afzelii plus recombinant VlsE	IgG ELISA: complete antigen spectrum incl. VlsE, high sensitivity	EI 2132-9601-2 G	194
	Whole antigen, detergent extract of B. burgdorferi, B. garinii and B. afzelii	IgM ELISA: complete antigen spectrum incl. OspC, high sensitivity	EI 2132-9601 M	194
	Mix of recombinant Borrelia antigens incl. VlsE (IgG) or dimeric OspC advanced (IgM)	Especially selected highly specific antigens, reduced cross reactivity	EI 2132-9601-5 G/M	194
ChLIA	IgG: VlsE of different Borrelia species, DbpA IgM: OspC advanced of different Borrelia species	Chemiluminescence tests for the random access instrument RA Analyzer 10	LI 2132-10010 G/M (control set: LR 2132-20210 G/M)	200
Blot	IgG: p18, p19, p20, p21, p58, OspC, p39, p41, p83, LBb, LBa, VlsE Bg, VlsE Bb, VlsE Ba IgM: OspC Bg, OspC Bb, OspC Ba, p39, p41, VlsE Bb	Line blots with diagnostically relevant Borrelia antigens incl. VlsE and OspC from different Borrelia species; simple evaluation	DN 2131-#### G/M	191
	OspC-adv Bsp, OspC-adv Bg, OspC-adv Bb, OspC-adv Ba, p39, p41, VlsE Bb	IgM line blot with rec. Borrelia antigens incl. dimeric OspC advanced from different Borrelia species	DN 2131-####-2 M	191
IIFT	Smears of B. afzelii and B. burgdorferi plus VlsE and OspC	Alternative screening test for a small number of samples	FI 2136-####-1 G/M	202

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Bacteria

Bordetella · Borrelia · Treponema · Chlamydia

For more information on this subject scan the QR code or enter the Quick Link code q044 at www.euroimmun.com

Treponema pallidum

Clinical information: Treponema pallidum is the pathogenic agent of syphilis (lues), a worldwide occurring, sexually or diaplacentally transmitted infection that is divided into 4 stages. 1. Primary stage: The typical primary manifestation is a clearly defined fibrous or crusted erosion at the site of infection which occurs about three weeks after infection. An ulcer or a hardening of the lesion can develop (hard chancre). Local lymph nodes become swollen within a week. 2. Secondary stage: In addition to a generalised swelling of the lymph nodes, 90% of patients show local or generalised skin disorders. Various organ disorders may develop, for example, ketaritis, iritis, hepatitis, vasculitis, and myocardial disorders. Secondary syphilis is followed by a clinically silent stage (syphilis latens), which can last for years. 3. Tertiary stage: Typical manifestations are large papules and ulcers on the skin and mucous membranes, as well as organ or visceral syphilis, perivasculitis, cardiovascular syphilis, ostitis and periostitis. 4. Quaternary stage: Severe neurological disorders in the form of neurosyphilis can occur up to 30 years after the initial infection. Diaplacental transmission of the pathogen causes congenital syphilis.

Diagnostics: The diagnosis of syphilis is based on clinical findings according to the disease stage, pathogen detection (from the primary lesion) and serological detection of antibodies against Treponema pallidum. The focus of laboratory diagnostics lies in antibody detection, which has proven successful with a three-staged diagnostic procedure consisting of screening, confirmation and evaluation of the disease activity.

Screening can be performed using Treponema-specific agglutination tests (TPPA, TPHA) and polyvalent enzyme immunoassays. Useful confirmatory tests are ELISA, FTA-abs test and immunoblots. Due to blood vessel inflammation and tissue damage the activity of the infection correlates with the antibody titer against mitochondrial lipids (cardiolipin), which can be detected using the RPR (rapid plasma reagin) test or VDRL (venereal disease research laboratory) test.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Antigen mixture of Treponema pallidum (p15, p17, p47 and TmpA)	Screening test; sensitive detection of T. pallidum-specific Ab (mixed conjugate IgG+IgM); very good correlation with TPHA/TPPA	EI 2111-9601 O	194
	Antigen mixture of Treponema pallidum (p15, p17, p47 and TmpA)	Confirmatory test; separate detection of T. pallidum-specific IgG or IgM antibodies	EI 2111-9601 G/M	194
Blot	Electrophoretically separated antigens of Treponema pallidum plus purified cardiolipin	Confirmatory test and information on disease activity by evaluation of the cardiolipin band	DY 2111-#### G/M	192
	Treponema pallidum-specific antigens (TpN15, TpN17, TmpA, TpN47)	Confirmatory test; separate detection of T. pallidum-specific antibodies by line blot	DN 2111-#### G/M	191
IIFT (FTA-Abs)	Bacteral smears of Treponema pallidum	Confirmatory test; unspecific cross-reacting antibodies are removed by pre-adsorption of samples	FI 2111-#### G/M	202

Parameter	Application	Order number	Page
EUROArray STI - 11	PCR-based direct detection of Chlamydia trachomatis, Neisseria gonorrhoeae, HSV-1, HSV-2, Haemophilus ducreyi, Mycoplasma genitalium, Mycoplasma hominis, Treponema pallidum, Trichomonas vaginalis, Ureaplasma parvum and Ureaplasma urealyticum	MN 2830-####	286

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Bacteria

Bordetella · Borrelia · Treponema · Chlamydia

For more information on this subject scan the QR code or enter the Quick Link code q010 at www.euroimmun.com

Chlamydia

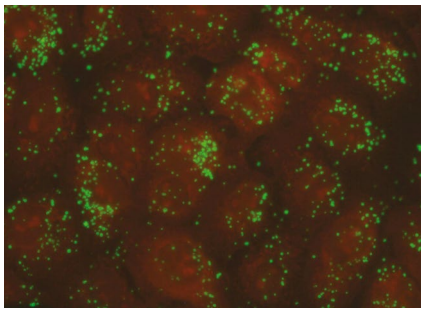
Clinical information: The infectious agents Chlamydia trachomatis, Chlamydia pneumoniae and Chlamydia psittaci belong to the human pathogenic Chlamydia genus.

Chlamydia trachomatis can cause the following diseases: 1. Trachoma, a tropical eye infection (serotypes A-C); 2. infections of the urogenital tract (serotypes D-K). Non-gonorrheal urethritis is one of the most common venereal diseases worldwide. Secondary effects of C. trachomatis infection can be reactive arthritis, secondary sterility or infertility. 3. Lymphogranuloma venereum (LGV), a rare venereal disease which occurs mainly in tropical areas (serotypes L1-L3).

C. pneumoniae mostly causes infections of the upper respiratory tract and pneumonia. Around half of infections proceed asymptomatically. More than 50% of adults have been infected with Chlamydia pneumoniae and exhibit antibodies against the pathogen.

C. psittaci is the causative agent of psittacosis, an infection transmitted to humans by domesticated birds. In addition to flu-like symptoms, a life-threatening pneumonia can develop during the course of the infection, which is often accompanied by further organ manifestations.

Diagnostics: Pathogen detection (e.g. using PCR) is the method of choice for the diagnosis of acute urogenital C. trachomatis infection. In after-effects associated with C. trachomatis such as sterility or reactive arthritis, direct detection of the pathogen is mostly no longer possible. In these cases the investigation of IgA and IgG antibodies is of importance.



Since the diagnosis of C. pneumoniae infections in humans by means of symptoms or radiography is not entirely reliable, laboratory diagnostics play a significant role. Detection of the pathogen is useful in the diagnosis of acute infection, but often fails if the infection is older. The analysis of specific Chlamydia antibodies (IgA, IgG, IgM) can help with diagnosing primary infection and reinfection. A significant titer increase or seroconversion in two serum samples taken at an interval of several weeks indicates acute infection with C. pneumoniae.

Specific antibodies against Chlamydia antigens can be detected using MIF (micro-immunofluorescence) assay, ELISA or immunoblot. Since the three Chlamydia species have the same cell wall proteins (such as lipopolysaccharids, LPS) and are therefore very similar, cross-reactions cannot be ruled out. The inactivation of LPS antigens in the MIF minimises cross reactivity. Type-specific membrane proteins (MOMP: major outer membrane protein) are also suited for species-specific antibody detection.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Native MOMP (major outer membrane protein) antigen of C. trachomatis	Species-specific detection by use of type-specific MOMP antigen	EI 2191-9601 A/G/M	195
	Cell lysate of C. pneumoniae	Genus-specific detection; sensitive detection of anti-C. pneumoniae Ab	EI 2192-9601 A/G/M	195
Blot	SDS extract of C. trachomatis plus MOMP antigen	Species-specific detection; separate detection of specific and cross-reacting antibodies	DY 2191-1601-1 A/G	193
	SDS extract of C. trachomatis plus membrane chips with antigens of C. trachomatis, C. pneumoniae and C. psittaci	Parallel detection of Ab against the three human pathogenic (HP) Chlamydia species C. trachomatis, pneumoniae and psittaci	DY 2190-1601-1 A/G	193
IFT (MIF)	Elementary bodies of C. trachomatis, C. pneumoniae, C. psittaci and control BIOCHIP with non-infected cells	Species-specific detection (cross-reacting LPS Ag are inactivated); simple evaluation due to use of optimised substrates; secure differentiation between unspecific and specific fluorescences by means of control BIOCHIP	FI 2191-####-3 A/G/M FR 2191-####-3 A/G/M (EUROPattern)	203

Parameter	Application	Order number	Page
EUROArray STI - 11	PCR-based direct detection of C. trachomatis, N. gnorrhoeae, HSV-1, HSV-2, H. ducreyi, M. genitalium, M. hominis, T. pallidum, T. vaginalis, U. parvum and U. urealyticum	MN 2830-####	286

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Viruses

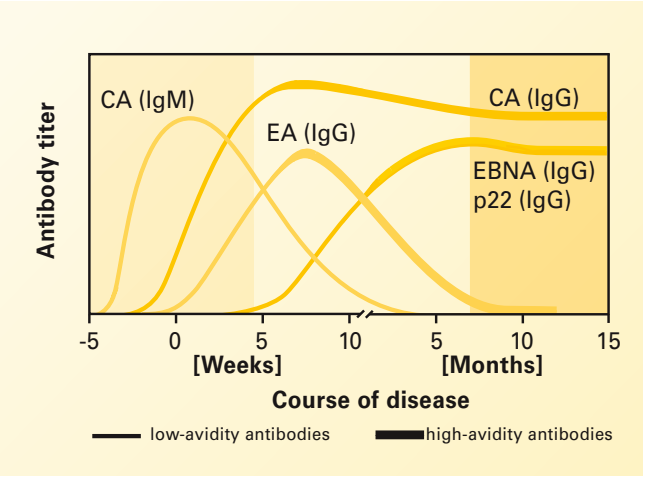
EBV · HEV

For more information on this subject scan the QR code or enter the Quick Link code q013 at www.euroimmun.com

Epstein-Barr virus

Clinical information: Epstein-Barr virus (EBV) is the causative agent of infectious mononucleosis (glandular fever), a febrile disease usually accompanied by pharyngitis and lymphadenopathy, frequently by hepatosplenomegaly and more rarely by exanthema. Recent research results have also shown a connection between EBV infection and the pathogenesis of Burkitt's lymphoma and nasopharyngeal carcinoma (NPC). In pregnancy, EBV can cause infection of the placenta, leading to damage to the foetal heart, eyes and liver. In children, accompanying infections of the kidney have been observed with symptoms from microscopic haematuria to acute kidney failure.

Diagnostics: Infectious mononucleosis must be differentiated diagnostically from cytomegaly and toxoplasmosis and, in the case of atypical progress, also from infections with HIV and other pathogens.



The main goal of routine diagnostics is to differentiate between the stages of an EBV infection, for example primary or past infection. Infections are in most cases confirmed by serological detection of antibodies. Determination of the viral load by PCR is useful in immunosuppressed patients and in chronic active EBV infections.

During the course of an EBV infection the antibodies appear successively. In the early phase of the disease, IgM and IgG antibodies against EBV capsid antigen (EBV-CA) are detectable. A positive anti-EBV-CA (IgM) result is the classic marker of an acute infection. IgG antibodies against the early antigen (EA) occur somewhat later in the acute phase and decline to an undetectable concentration after three to six months. In contrast, the CA IgG antibody level persists lifelong. Around six to eight weeks after an infection, antibodies against Epstein-Barr nuclear antigen (EBNA) are produced. Their occurrence thus indicates a past infection.

Serologically difficult constellations, such as persistent anti-EBV-CA IgM antibodies, the absence of specific anti-EBV-CA IgM antibodies in acute infections or secondary loss of anti-EBNA IgG antibodies, can be clarified by measuring the avidity of anti-EBV-CA IgG antibodies and/or by the detection of further late-phase markers by immunoblot.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Mixture of native EBV capsid antigens (EBV-CA)	IgG/IgA ELISA: complete Ag spectrum ensures high sensitivity and high specificity; avidity determination: exclusion of acute infection	EI 2791-9601 A/G EI 2791-9601-1 G	199 199
	Native EBV-CA gp125	IgM ELISA: optimal for the diagnosis of acute infection	EI 2791-9601 M	199
	Recombinant EBNA-1 antigen	High specificity for the late stage of the disease	EI 2793-9601 G	199
	Recombinant EBV early antigen D (EBV-EA-D)	Highly specific recombinant antigen	EI 2795-9601 A/G/M	199
ChLIA	Recombinant EBV capsid antigens (p18, p23, gp125)	IgG ChLIA: antigen spectrum ensures high sensitivity and specificity	LI 2791-10010 G (control set: LR 2791-20210 G	200
	Recombinant EBV capsid antigens (p18, gp125)	IgM ChLIA: optimal for the diagnosis of acute infections	LI 2791-10010 M (control set: LR 2791-20210 M)	200
	Recombinant EBNA-1 antigen	IgG ChLIA: high specificity for the late phase of the disease	LI 2793-10010 G (control set: LR 2793-20210 G)	200
Blot	EBV Profile 2: separate EBV-CA gp125, EBV-CA p19, EBNA-1, p22, EA-D	Line blot with all relevant EBV antigens for the diagnosis and differentiation of early-stage and late-stage EBV infections	DN 2790-####-2 G/M	192
IIFT	BIOCHIP sequence: EBV-CA (avidity test, IgG, IgM), EBV-EA, EBNA; infected cells	IIFT is the gold standard for EBV diagnostics; BIOCHIP sequence contains all relevant antigens; avidity determination: exclusion of acute infection	FI 2799-####-1 X	211
	EUROPLUS sequence: EBV-CA (avidity test, IgG, IgM, gp125-Ag, p19-Ag), EBV-EA, EBNA; infected cells		FI 2799-####-21 X	211

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Viruses

EBV · HEV

For more information on this subject scan the QR code or enter the Quick Link code q026 at www.euroimmun.com

Hepatitis E virus

Clinical information: Hepatitis E virus (HEV) is the causative agent of hepatitis E, a worldwide distributed infectious disease. HEV is an uncoated RNA virus of the Hepeviridae family. Four human pathogenic genotypes of HEV have so far been described (1–4). While genotypes 1 and 2 are exclusively human pathogenic, genotypes 3 and 4 are found in humans and animals. The most common ways of infection include faecal-oral transmission by the consumption of contaminated drinking water or food (endemic areas with low hygienic standards) and zoonotic transmission by the consumption of insufficiently cooked meat from infected animals, e.g. domestic or wild pigs (industrialised countries). Virus-contaminated blood products are also discussed as a potential source of infection for humans.

Infections with HEV usually proceed asymptomatically or mildy with unspecific symptoms such as tiredness, loss of appetite, nausea, vomiting, headache and muscle and joint pains. If liver inflammation occurs, it is often self-limiting and heals without any complications. In rare cases hepatitis E can have a fulminant course with acute liver failure. Pregnant women with a history of severe disease courses are particularly at risk. Up to 20% of HEV infections are fatal for the expectant mother (lethality in hepatitis E infections in the total population: 0.5 to 4%).

Diagnostics: Since the clinical picture of hepatitis E resembles hepatitis A as well as other hepatitides, laboratory diagnostic methods are of major importance for diagnosis. Besides PCR detection of viral RNA in blood or stool (recommended method for very early phase of infection) the serological determination of antibodies of class IgA/IgG/IgM against hepatitis E virus is the most important tool for confirming HEV infections. Pathogen-specific antibodies are often detectable at or shortly after the onset of clinical symptoms. A positive IgA and/or IgM result and a significant IgG titer increase in a serum pair (taken at an interval of 8 to 14 days) indicate an acute infection. IgA and IgM anti-HEV titers generally decrease rapidly after infection, while IgG anti-HEV titer often persist for more than 10 years.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Recombinant target antigens of HEV genotypes 1 and 3	IgG ELISA: first commercial ELISA with quantification in international units (IU/ml) in accordance with WHO standard	EI 2525-9601 G	196
		IgM ELISA: detection of HEV-specific antibodies of class IgM with high specificity and sensitivity	EI 2525-9601 M	196
		IgA ELISA: supplementary test for the diagnosis of acute HEV infection	EI 2525-9601 A	196
		Screening ELISA for parallel determination of IgA, IgG and IgM antibodies against HEV	EI 2525-9601 P	196

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Funguses

Aspergillus

For more information on this subject scan the QR code or enter the Quick Link code q157 at www.euroimmun.com

Aspergillus

Clinical information: Moulds of the genus Aspergillus are present in the air and soil, but also in biological waste and contaminated foods. Within the genus, which encompasses more than 300 species, some may lead to infections in humans, given the respective predisposition. Here, Aspergillus fumigatus plays an especially important role. Infections with other species such as A. flavus, A. niger, A. terreus were also described. Transmission occurs via inhalation of spores, of which humans inhale up to several hundred every day. In patients with an intact immune system, this intake does not lead to an infection since the spores can be controlled by the cellular immune system. In the beginning, a permanent load may cause hypersensitivity or allergic reactions (allergic bronchopulmonary aspergillosis, ABPA). With existing lung damage, e.g. destructed lung tissue due to tuberculosis, an aspergilloma, that is, a tumour-like growth may develop.

In patients with weakened immune system or immunosuppression, infections often lead to invasive aspergillosis. Initially, this manifests mainly in the respiratory tracts and the sinuses, but may also disseminate haematogenically and consequently affect organs such as the brain, liver and kidneys. This is usually accompanied by unspecific symptoms such as high fever and inflammation of the affected organs and may affect the central nervous system. Especially haemato-oncological and bone-marrow-transplanted patients are mostly affected. However, also other immune deficiencies, e.g. due to HIV infections or treatments with glucocorticoids, may favour an infection. In the last years, an increasing number of nosocomial infections were observed in patients in intensive care units. According to studies, up to 20 % of the group of bone-marrow-transplanted patients were affected by an invasive fungal infection. Here, aspergilloses and candidiases are the most relevant infections. Depending on the manifestation, 50 to 90 % of invasive aspergilloses are fatal.

Diagnostics: The laboratory diagnostic detection is based on cultivation or microscopy. However, cultivation is only successful in 50 % of cases. The detection of Aspergillus antigen from body fluids is nowadays an established additional method. This enables the sensitive Aspergillus detection already at an early stage. Due to this reason, detection of Aspergillus antigens was included in the guidelines of the European Organization for Research and Treatment of Cancer (EORTC) and the National Institute of Allergy and Infectious Diseases Mycoses Study Group (MSD) as a criterion of a “probable” invasive aspergillosis. Established test systems are based on the detection of polysaccharides from the cell wall.

Product overview

Method	Substrate	Application	Order number	Page
Antigen ELISA	Antibodies against a glycosylated cell wall protein of Aspergillus (extracellular part)	Sensitive detection for the support to the diagnosis of acute aspergilloses	EQ 6911-9601	253
IIFT	Candida albicans smears	Separate detection of different antibodies classes against Candida albicans	FI 2861-#### A, G or M	213

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q157 at www.euroimmun.com

Special infection diagnostics

CSF diagnostics · TORCH · Tropical infections

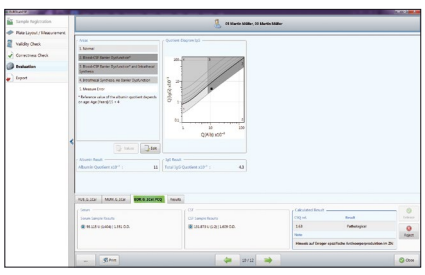
For more information on this subject scan the QR code or enter the Quick Link code q031 at www.euroimmun.com

CSF diagnostics

Clinical information: The investigation of cerebrospinal fluid (CSF) is diagnostically decisive in acute or chronic inflammatory processes of the central nervous system (CNS), Acute CNS infections manifest themselves as meningitis (inflammation of the meninges), meningoencephalitis (inflammation of the brain or meninges) or encephalitis (inflammation of the brain). These infections can be caused by bacteria (e.g. Borrelia, Treponema pallidum), viruses (e.g. HSV, VZV, measles virus, TBE virus, EBV) or parasites (e.g. Toxoplasma gondii). CSF analysis also plays a major role in the differential diagnosis of non-infectious diseases such as multiple sclerosis (MS). The detection of intrathecal synthesis of antibodies against measles, rubella and/or varicella zoster viruses (MRZ reaction) is a specific indicator of MS.

Diagnostics: When determining an infection of the CNS it is necessary to differentiate between intrathecally produced antibodies and antibodies which have migrated from the blood into CSF. This is done by measuring the concentrations of pathogen-specific antibodies, corresponding immunoglobulin classes (total IgG, IgM) and albumin in both the CSF and serum of the patient. If an infection of the central nervous system is present, pathogen-specific antibodies accumulate in the CSF. If, however, the infection has not spread to the brain and the blood/CSF barrier is still intact, the distribution of pathogen-specific antibodies in CSF and serum is the same as that of total IgG. The intrathecal pathogen-specific antibody production is defined by the relative CSF/serum quotient $CSQ_{rel.}$ (synonym: antibody specificity index). The quotient is calculated from the amount of specific IgG antibodies in total CSF IgG in proportion to the amount of specific IgG antibodies in total serum IgG. A $CSQ_{rel.}$ >1.5 indicates intrathecal synthesis of pathogen-specific antibodies.

In addition to the determination of specific antibodies, also the investigation of chemokine CXCL13 in CSF is useful for the diagnosis of neuroborreliosis. In patients with acute neuroborreliosis, in early stages of the disease, high concentrations of CXCL13 are frequently observed, often even before antibodies against Borrelia are detectable. CXCL13 determination can help to close the gap between infection and positive antibody test and to diagnose neuroborreliosis at an earlier stage. Moreover, CXCL13 used as activity marker helps to differentiate between acute and past neuroborreliosis. CXCL13 is also suitable as a marker for the disease course after treatment. Its concentration in CSF decreases with successful therapy. It needs to be taken into account that increased CXCL13 values can also be observed in other diseases, in particular in CNS lymphoma, HIV infections and neuro-lues.



Evaluation software: EUROIMMUN CSF software is a program for automatic calculation of CSF/serum quotients. For further information see page 70.

Product overview

Method	Substrate	Application	Order number	Page
ELISA	Borrelia	Efficient standardised automation with uniform dilution and incubation conditions; 4-point standard curve for highest accuracy; extended measurement range due to optional additional calibrators (Borrelia, MRZH); very good reproducibility of results for the whole measurement range; excellent agreement with quality assessment results (INSTAND e.V.); automated calculation of results (EUROIMMUN CSF software); CSF/serum control pair available for all ELISAs	EI 2132-9601-L G/M	194
	Measles virus		EI 2610-9601-L G	197
	Rubella virus		EI 2590-9601-L G	196
	Varicella zoster virus (VZV)		EI 2650-9601-L A/G	197
	Herpes simplex virus (HSV-1/2)		EI 2531-9601-1 L G	196
	Cytomegalovirus (CMV)		EI 2570-9601-L G	196
	Mumps virus		EI 2630-9601-L G	197
	Tick-borne encephalitis (TBE)		EI 2661-9601-L G/M	198
	Epstein-Barr virus (EBV-CA)		EI 2791-9601-L G	199
	Treponema pallidum		EI 2111-9601-L G	194
	Toxoplasma gondii		EI 2410-9601-L G	195
Blot	Recombinant and native Borrelia antigens	Additional test for differentiated analysis of antibody band patterns in CSF and serum	DN 2131-3201 G/M DN 2131-3201-2 M	191
Antigen ELISA	Anti-CXCL13 antibody	Activity and therapy marker in neuroborreliosis	EQ 6811-9601-L	201

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q078 at www.euroimmun.com

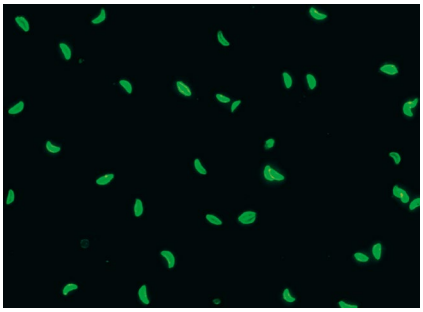
Special infection diagnostics

CSF diagnostics · TORCH · Tropical infections

For more information on this subject scan the QR code or enter the Quick Link code q043 at www.euroimmun.com

TORCH

Clinical information: The term TORCH encompasses all infectious agents that can be transferred from mother to child in the uterus, during birth or after birth via vertical infection. It includes Toxoplasma gondii, rubella virus, cytomegalovirus (CMV), herpes simplex virus (HSV) and other pathogens such as Chlamydia trachomatis, parvovirus B19, Treponema pallidum and varicella zoster virus (VZV). Primary infections during pregnancy are especially feared, since they are associated with an increased risk of damage to the child.



Diagnostics: Nowadays, analysis of antibodies against TORCH parameters is an essential part of pre-, peri- and postnatal care. The tests allow the immune status of the mother to be established and the risks to an existing pregnancy assessed. The diagnostic procedure depends on the patient history, special risk factors and national regulations. TORCH tests are generally performed during the first trimester of pregnancy, but they can also be carried out on the newborn if an infection is suspected. The initial investigation of antibodies against TORCH pathogens is aimed at determining the immune status of the mother in order to be able to differentiate between acute primary and past infections or reactivations during the course of pregnancy. If diagnosed early, TORCH infections can in part be effectively treated, reducing the risk of birth defects or loss of the foetus. If there is no immunity against one of the TORCH pathogens, it is very important for the mother to avoid contact with known infection sources during pregnancy.

Product overview

Methode	Substrate	Application	Order number	Page
ELISA	Native whole antigen of Toxoplasma gondii	Complete antigen spectrum; screen ELISA: sensitive screening test for IgAGM; IgA ELISA: detection of specific IgA, useful in ambiguous cases; avidity determination: exclusion of acute infection	EI 2410-9601 P EI 2410-9601 A/G/M EI 2410-9601-1 G	195 195 195
	Purified native antigens (IgG) and glycoproteins (IgM) of rubella virus	IgG ELISA: complete antigen spectrum; IgM ELISA: highest specificity through the use of pathogen-specific glycoproteins; avidity determination: exclusion of actue infection	EI 2590-9601 G EI 2590-9601-1 G EI 2590-9601-2 M	196 197 197
	Purified native antigens of cytomegalovirus	IgG/IgM ELISA: complete antigen spectrum; avidity determination: exclusion of acute infection	EI 2570-9601 G/M EI 2570-9601-1 G	196 196
	Recombinant p52 antigen of cytomegalovirus	IgM ELISA with reduced cross-reactivity compared to lysate-based tests	EI 2570-9601-2 M	196
	Mixture of HSV-1 and -2 whole antigens	Determination of IgA, IgG or IgM antibodies against both HSV species in the same test	EI 2531-9601-1 A/G/M	196
	Glycoprotein C1 of HSV-1 or G2 of HSV-2	IgG and IgM ELISA for type-specific differentiation between HSV-1 and HSV-2	EI 2531-9601-2 G/M EI 2532-9601-2 G/M	196 196
Blot	Separate bands with native or recombinant antigens from different TORCH pathogens	Multiplex detection of IgG or IgM antibodies against up to 10 different TORCH antigens	DN 2410-1601-4 G/M DN 2410-####-11 G	191

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q100 at www.euroimmun.com

Special infection diagnostics

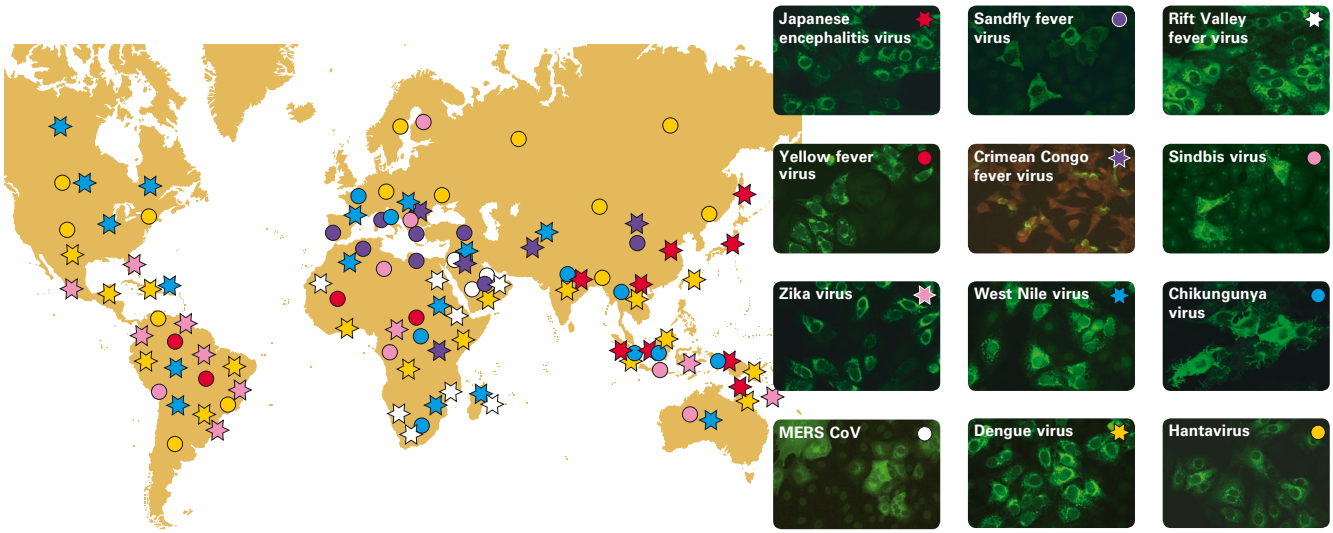
CSF diagnostics · TORCH · Tropical infections

For more information on this subject scan the QR code or enter the Quick Link code q045 at www.euroimmun.com

Tropical infections and emerging diseases

Clinical information: The term tropical diseases encompasses a range of infectious diseases, which – as the name suggests – originate in tropical regions. However, they can also occur in other regions, for example, through transmission by returning travellers. Emerging diseases are infections that are new in a population, or are already known but have increased rapidly in incidence or regional distribution. In recent years, large epidemics have mostly been caused by mosquito-borne viruses such as Zika, dengue and chikungunya viruses. These viruses generally cause febrile diseases with unspecific flu-like symptoms. In the further course of disease, severe complications such as encephalitis or haemorrhaging can occur. Moreover, neurological abnormalities in newborns are associated with Zika virus infection. In addition to viral diseases, parasitic infections, for example with Echinococcus, Plasmodium, Strongyloides, Trypanosoma or Schistosoma, also play a role in humans. The symptoms of a parasitic infection are extremely variable and sometimes occur after months or years, as is the case with echinococcosis.

Diagnostics: The diagnosis of tropical infections is a particular challenge. Over the past years it has been observed that many new viruses and other pathogens have spread worldwide, introducing unknown diseases into previously unaffected regions. For these parameters there are often no commercial diagnostic test systems available. Antibody analysis is useful for testing travellers after trips to endemic areas and for screening large population groups. EUROIMMUN offers a wide range of products for the determination of specific antibodies against many pathogens.



Product overview

Method	Substrate	Application	Order number	Page
ELISA*	Recombinant nonstructural protein (NS1) of Zika virus	Hiighly specific detection of Zika virus infection	EI 2668-9601 G/M	198
	Preparation of dengue virus particles and rec. glyco-protein E of types 1-4	Monospecific detection of anti-dengue virus antibodies	EI 266a-9601-1 G/M	198
	Monoclonal mouse anti-dengue virus NS1 antibody	Early marker for acute dengue infections	EQ 266a-9601-1	201
	Recombinant viral structure protein from chikungunya virus	Highly specific test for the diagnosis of chikungunya fever	EI 293a-9601 G/M	199
	Purified native Echinococcus multilocaris vesicle fluid (EmVF)	Screening test for detection of alveolar and cystic echinococcosis	EI 2320-9601-1G	195
	Recombinant target antigens from all 5 human pathogenic Plasmodium species (P. falciparum, P. vivax, P. malariae, P. ovale and P. knowlesi)	Identification of latent, asymptomatic and chronic Plasmodium infections	EI 2260-9601 G	195
Blot	Combination of whole antigen extract (Echinococcus multilocaris vesicle fluid, EmVF) and specific single antigens	Differentiation between alveolar and cystic echinococcosis	DY 2321-1601-1 G	193
IFT**	Flavivirus Mosaics: Zika virus, TBE virus, WNV, JEV, yellow fever virus, dengue virus types 1-4	Serological diagnosis of flavivirus infections; differential diagnostics	FI 2661-####-1 G/M FI 2661-####-2 G/M FI 2661-####-3 G/M	207 207 207
	Arbovirus Fever Mosaics: Zika virus, chikungunya virus, dengue virus, JEV	For differential diagnosis of arbovirus infections, in particular Zika, dengue and chikungunya infections	FI 293a-####-1 G/M FI 2668-####-1 G/M	213 208
	Frozen sections of Echinococcus protoscolices	Detection of cystic echino-coccosis	FI 2320-1005 A/G/M	205

*) Further parameters available: Leishmania donovani, Schistosoma mansoni, MERS CoV, Sindbis virus, Plasmodia.
**) Further parameters available: Leishmania donovani, Schistosoma mansoni, MERS-CoV, Sindbis virus.

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q102 at www.euroimmun.com

Products for infection diagnostics

Format

- 1601: 16 single test strips
- 1208: 12 microplate strips with 8 wells each
- 9601: 96 individual break-apart wells (12 microplate strips, 8 wells each)
- 1003: 10 slides with 3 fields each
- 1005: 10 slides with 5 fields each
- 2005: 20 slides with 5 fields each
- 1010: 10 slides with 10 fields each
- 1050: 10 slides with 50 fields each
- 1001: 10 slides to be incubated with 1 patient serum each
- 1002: 10 slides to be incubated with 2 patient sera each

EI 2132 - 9601 -2 G

Product code

Immunoglobulin class

- A: IgA
- G: IgG
- M: IgM
- O: IgGM
- P: Polyvalent (IgAGM)
- X: Low-avid ab of class IgG
- H: High-avid ab of class IgG

Product classification

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the serological investigation. For diagnostics in indirect immunofluorescence, for example, these include slides, FITC-labelled antibodies against human immunoglobulin, positive and negative control sera (not available for some products) as well as embedding medium, cover glasses, sachets of PBS and Tween 20. EUROSORB for the determination if IgM class antibodies and sample buffer 3 (for anti-Borrelia IIFT only) are not included in the immunofluorescence test systems.

Substrates consisting of cell cultures and tissues which do not appear in this catalogue can be made to specification. In addition, BIOCHIP mosaics can be produced according to individual requirements. Apart from the customary package sizes and slide formats, special sizes are available as well. Quotations can be provided upon request.

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2050-0101 A	**antibodies against Bordetella pertussis IgA positive control**	IgA	0.1 ml
CI 2050-0101 G	**antibodies against Bordetella pertussis IgG positive control**	IgG	0.1 ml
CI 2050-0101 M	**antibodies against Bordetella pertussis IgM positive control**	IgM	0.1 ml
CI 2050-0101 Z	**Bordetella pertussis/parapertussis negative control**	IgA, IgG, IgM	0.1 ml
CI 2055-0101 A	**antibodies against Bordetella parapertussis IgA positive control**	IgA	0.1 ml
CI 2055-0101 G	**antibodies against Bordetella parapertussis IgG positive control**	IgG	0.1 ml
CI 2055-0101 M	**antibodies against Bordetella parapertussis IgM positive control**	IgM	0.1 ml
CI 2055-0101 Z	**Bordetella parapertussis negative control**	IgA, IgG, IgM	0.1 ml
CI 2111-0101 G	**antibodies against Treponema pallidum unspecific FTA IgG positive control**	IgG	0.1 ml
CI 2111-0101 M	**antibodies against Treponema pallidum unspecific FTA IgM positive control**	IgM	0.1 ml
CI 2111-0101 Z	**Treponema pallidum FTA negative control**	IgA, IgG, IgM	0.1 ml
CI 2111-0150-1 G	**antibodies against Treponema pallidum IgG positive control for FTA absorption**	IgG	50 µl serum concentrate
CI 2131-0101 G **CI 2131-0102 G**	**antibodies against Borrelia afzelii/B. burgdorferi/B. garinii/VlsE IgG positive control**	IgG	0.1 ml 0.25 ml
CI 2131-0101 M **CI 2131-0102 M**	**antibodies against Borrelia afzelii/B. burgdorferi/B. garinii/OspC IgM positive control**	IgM	0.1 ml 0.25 ml
CI 2131-0101 Z **CI 2131-0102 Z**	**Borrelia afzelii/B. burgdorferi/B. garinii negative control**	IgA, IgG, IgM	0.1 ml 0.25 ml
CI 2140-0101 Z	**Listeria monocytogenes negative control**	IgA, IgG, IgM	0.1 ml
CI 2141-0101 G	**antibodies against Listeria monocytogenes 1/2a IgG positive control**	IgG	0.1 ml
CI 2141-0101 M	**antibodies against Listeria monocytogenes 1/2a IgM positive control**	IgM	0.1 ml
CI 2144-0101 G	**antibodies against Listeria monocytogenes 4b IgG positive control**	IgG	0.1 ml
CI 2150-0101 P	**antibodies against Legionella pneumophila serotypes 1 or 4 IgAGM positive control**	IgAGM	0.1 ml
CI 2150-0101-4 G	**antibodies against Legionella pneumophila mixture 1-2-3-4-5-6-7, mixture 8-9-10-11-12-13-14, mixture L. non-pneumophila 6 sp IgG positive control**	IgG	0.1 ml
CI 2151-0101 Z	**Legionella pneumophila/non-pneumophila negative control**	IgA, IgG, IgM	0.1 ml
CI 215b-0101 P	**antibodies against Legionella pneumophila mixture 1-4-6-8 IgAGM positive control**	IgAGM	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2165-0101 P	**antibodies against Legionella jordanis IgAGM positive control**	IgAGM	0.1 ml
CI 2168-0101 G	**antibodies against Legionella longbeachae IgG positive control**	IgG	0.1 ml
CI 2191-0101 A	**antibodies against Chlamydia trachomatis IgA positive control**	IgA	0.1 ml
CI 2191-0101 G	**antibodies against Chlamydia trachomatis IgG positive control**	IgG	0.1 ml
CI 2191-0101 M	**antibodies against Chlamydia trachomatis IgM positive control**	IgM	0.1 ml
CI 2191-0101-1 Z	**Chlamydia spp. negative control**	IgA, IgG, IgM	0.1 ml
CI 2192-0101 A	**antibodies against Chlamydia pneumoniae IgA positive control**	IgA	0.1 ml
CI 2192-0101 G	**antibodies against Chlamydia pneumoniae IgG positive control**	IgG	0.1 ml
CI 2192-0101 M	**antibodies against Chlamydia pneumoniae IgM positive control**	IgM	0.1 ml
CI 2193-0101 A	**antibodies against Chlamydia psittaci IgA positive control**	IgA	0.1 ml
CI 2193-0101 G	**antibodies against Chlamydia psittaci IgG positive control**	IgG	0.1 ml
CI 2193-0101 M	**antibodies against Chlamydia psittaci IgM positive control**	IgM	0.1 ml
CI 219b-0101 G **CI 219b-0102 G**	**antibodies against Bartonella henselae IgG positive control**	IgG	0.1 ml 0.25 ml
CI 219b-0101 M **CI 219b-0102 M**	**antibodies against Bartonella henselae IgM positive control**	IgM	0.1 ml 0.25 ml
CI 219b-0101 Z **CI 219b-0102 Z**	**Bartonella henselae/quintana negative control**	IgA, IgG, IgM	0.1 ml 0.25 ml
CI 219d-0101 G	**antibodies against Bartonella quintana IgG positive control**	IgG	0.1 ml
CI 219d-0101 M	**antibodies against Bartonella quintana IgM positive control**	IgM	0.1 ml
CI 2201-0101 G	**antibodies against Mycoplasma hominis IgG positive control**	IgG	0.1 ml
CI 2201-0101 Z	**Mycoplasma hominis/pneumoniae and Ureaplasma urealyticum negative control**	IgA, IgG, IgM	0.1 ml
CI 2202-0101 G	**antibodies against Mycoplasma pneumoniae IgG positive control**	IgG	0.1 ml
CI 2202-0101 M	**antibodies against Mycoplasma pneumoniae IgM positive control**	IgM	0.1 ml
CI 2205-0101 G	**antibodies against Ureaplasma urealyticum IgG positive control**	IgG	0.1 ml
CI 2231-0101 A	**antibodies against Leishmania donovani IgA positive control**	IgA	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2231-0101 G	**antibodies against Leishmania donovani IgG positive control**	IgG	0.1 ml
CI 2231-0101 Z	**Leishmania donovani negative control**	IgA, IgG, IgM	0.1 ml
CI 2300-0101 G **CI 2300-0102 G**	**antibodies against Schistosoma mansoni IgG positive control**	IgG	0.1 ml 0.25 ml
CI 2300-0101 M	**antibodies against Schistosoma mansoni IgM positive control**	IgM	0.1 ml
CI 2300-0101 Z **CI 2300-0102 Z**	**Schistosoma mansoni negative control**	IgA, IgG, IgM	0.1 ml 0.25 ml
CI 2320-0101 G	**antibodies against Echinococcus granulosus IgG positive control**	IgG	0.1 ml
CI 2320-0101 Z	**Echinococcus granulosus negative control**	IgA, IgG, IgM	0.1 ml
CI 2410-0101 G	**antibodies against Toxoplasma gondii IgG positive control**	IgG	0.1 ml
CI 2410-0101 H	**high-avid antibodies against Toxoplasma gondii IgG positive control**	avidity test	0.1 ml
CI 2410-0101 M	**antibodies against Toxoplasma gondii IgM positive control**	IgM	0.1 ml
CI 2410-0101 X	**low-avid antibodies against Toxoplasma gondii IgG positive control**	avidity test	0.1 ml
CI 2410-0101 Z	**Toxoplasma gondii negative control**	IgG, IgM	0.1 ml
CI 2531-0101 G	**antibodies against Herpes simplex virus 1 (HSV-1) IgG positive control**	IgG	0.1 ml
CI 2531-0101 M	**antibodies against Herpes simplex virus 1 (HSV-1) IgM positive control**	IgM	0.1 ml
CI 2531-0101 Z	**HSV-1/HSV-2 negative control**	IgA, IgG, IgM	0.1 ml
CI 2532-0101 G	**antibodies against Herpes simplex virus 2 (HSV-2) IgG positive control**	IgG	0.1 ml
CI 2532-0101 M	**antibodies against Herpes simplex virus 2 (HSV-2) IgM positive control**	IgM	0.1 ml
CI 2536-0101 G **CI 2536-0102 G**	**antibodies against HHV-6 IgG positive control**	IgG	0.1 ml 0.25 ml
CI 2536-0101 M **CI 2536-0102 M**	**antibodies against HHV-6 IgM positive control**	IgM	0.1 ml 0.25 ml
CI 2536-0101 Z **CI 2536-0102 Z**	**HHV-6 negative control**	IgG, IgM	0.1 ml 0.25 ml
CI 2570-0101 A	**antibodies against Cytomegalovirus (CMV) IgA positive control**	IgA	0.1 ml
CI 2570-0101 G	**antibodies against Cytomegalovirus (CMV) IgG positive control**	IgG	0.1 ml
CI 2570-0101 H	**high-avid antibodies against Cytomegalovirus (CMV) IgG positive control**	avidity test	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2570-0101 M	**antibodies against Cytomegalovirus (CMV) IgM positive control**	IgM	0.1 ml
CI 2570-0101 X	**low-avid antibodies against Cytomegalovirus (CMV) IgG positive control**	avidity test	0.1 ml
CI 2570-0101 Z	**Cytomegalovirus (CMV) negative control**	IgA, IgG, IgM	0.1 ml
CI 2590-0101 G	**antibodies against Rubella virus IgG positive control**	IgG	0.1 ml
CI 2590-0101 H	**high-avid antibodies against Rubella virus IgG positive control**	avidity test	0.1 ml
CI 2590-0101 X	**low-avid antibodies against Rubella virus IgG positive control**	avidity test	0.1 ml
CI 2590-0101 Z	**Rubella virus negative control**	IgG	0.1 ml
CI 2601-0101 Z	**MERS-CoV, SARS-CoV negative control**	IgG, IgM	0.1 ml
CI 2610-0101 G	**antibodies against Measles virus IgG positive control**	IgG	0.1 ml
CI 2610-0101 M	**antibodies against Measles virus IgM positive control**	IgM	0.1 ml
CI 2610-0101 Z	**Measles virus negative control**	IgG, IgM	0.1 ml
CI 2630-0101 G	**antibodies against Mumps virus IgG positive control**	IgG	0.1 ml
CI 2630-0101 M	**antibodies against Mumps virus IgM positive control**	IgM	0.1 ml
CI 2630-0101 Z	**Mumps virus negative control**	IgG, IgM	0.1 ml
CI 2650-0101 A	**antibodies against Varicella zoster virus (VZV) IgA positive control**	IgA	0.1 ml
CI 2650-0101 G	**antibodies against Varicella zoster virus (VZV) IgG positive control**	IgG	0.1 ml
CI 2650-0101 H	**high-avid antibodies against Varicella zoster virus (VZV) IgG positive control**	avidity test	0.1 ml
CI 2650-0101 M	**antibodies against Varicella zoster virus (VZV) IgM positive control**	IgM	0.1 ml
CI 2650-0101 X	**low-avid antibodies against Varicella zoster virus (VZV) IgG positive control**	avidity test	0.1 ml
CI 2650-0101 Z	**Varicella zoster virus (VZV) negative control**	IgA, IgG, IgM	0.1 ml
CI 2661-0101 G	**antibodies against TBE virus (TBEV) IgG positive control**	IgG	0.1 ml
CI 2661-0101 M	**antibodies against TBE virus (TBEV) IgM positive control**	IgM	0.1 ml
CI 2661-0101 Z	**TBE virus (TBEV) negative control**	IgA, IgG, IgM	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2661-0101-1 G CI 2661-0102-1 G	antibodies against Flaviviruses IgG positive control	IgG	0.1 ml 0,25 ml
CI 2661-0101-1 Z	Flaviviruses negative control	IgA, IgG, IgM	0.1 ml
CI 2662-0101 G	antibodies against West Nile virus (WNV) IgG positive control	IgG	0.1 ml
CI 2662-0101 M	antibodies against West Nile virus (WNV) IgM positive control	IgM	0.1 ml
CI 2662-0101 X	low-avid antibodies against West Nile virus (WNV) IgG positive control	avidity test	0.1 ml
CI 2662-0101 Z	West Nile virus (WNV) negative control	IgG, IgM	0.1 ml
CI 2663-0101 G	antibodies against Japanese encephalitis virus (JEV) IgG positive control	IgG	0.1 ml
CI 2663-0101 M	antibodies against Japanese encephalitis virus (JEV) IgM positive control	IgM	0.1 ml
CI 2663-0101 Z	Japanese encephalitis virus (JEV) negative control	IgG, IgM	0.1 ml
CI 2665-0101 G	antibodies against Yellow fever virus (YFV) IgG positive control	IgG	0.1 ml
CI 2665-0101 M	antibodies against Yellow fever virus (YFV) IgM positive control	IgM	0.1 ml
CI 2665-0101 Z	Yellow fever virus (YFV) negative control	IgG, IgM	0.1 ml
CI 266a-0101 G	antibodies against Dengue virus (DENV) IgG positive control	IgG	0.1 ml
CI 266a-0101 M	antibodies against Dengue virus (DENV) IgM positive control	IgM	0.1 ml
CI 266a-0101 Z	Dengue virus (DENV) negative control	IgG, IgM	0.1 ml
CI 2670-0101 A	antibodies against Respiratory syncytial virus (RSV) IgA positive control	IgA	0.1 ml
CI 2670-0101 G	antibodies against Respiratory syncytial virus (RSV) IgG positive control	IgG	0.1 ml
CI 2670-0101 M	antibodies against Respiratory syncytial virus (RSV) IgM positive control	IgM	0.1 ml
CI 2670-0101 Z	Respiratory syncytial virus (RSV) negative control	IgA, IgG, IgM	0.1 ml
CI 2680-0101 A	antibodies against Adenovirus IgA positive control	IgA	0.1 ml
CI 2680-0101 G	antibodies against Adenovirus IgG positive control	IgG	0.1 ml
CI 2680-0101 M	antibodies against Adenovirus IgM positive control	IgM	0.1 ml
CI 2680-0101 Z	Adenovirus negative control	IgA, IgG, IgM	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 2691-0101 A	**antibodies against Influenza virus type A IgA positive control**	IgA	0.1 ml
CI 2691-0101 G	**antibodies against Influenza virus type A IgG positive control**	IgG	0.1 ml
CI 2691-0101 M	**antibodies against Influenza virus type A IgM positive control**	IgM	0.1 ml
CI 2691-0101 Z	**Influenza virus type A/B negative control**	IgA, IgG, IgM	0.1 ml
CI 2692-0101 A	**antibodies against Influenza virus type B IgA positive control**	IgA	0.1 ml
CI 2692-0101 G	**antibodies against Influenza virus type B IgG positive control**	IgG	0.1 ml
CI 2692-0101 M	**antibodies against Influenza virus type B IgM positive control**	IgM	0.1 ml
CI 2720-0101 A	**antibodies against Parainfluenza virus types 1 - 4 IgA positive control**	IgA	0.1 ml
CI 2720-0101 G	**antibodies against Parainfluenza virus types 1 - 4 IgG positive control**	IgG	0.1 ml
CI 2720-0101 M	**antibodies against Parainfluenza virus types 1 - 4 IgM positive control**	IgM	0.1 ml
CI 2720-0101 Z	**Parainfluenza virus negative control**	IgA, IgG, IgM	0.1 ml
CI 2730-0101 A	**antibodies against Coxsackie virus IgA positive control**	IgA	0.1 ml
CI 2730-0101 G **CI 2730-0102 G**	**antibodies against Coxsackie virus IgG positive control**	IgG	0.1 ml 0.25 ml
CI 2730-0101 M **CI 2730-0102 M**	**antibodies against Coxsackie virus IgM positive control**	IgM	0.1 ml 0.25 ml
CI 2730-0101 Z **CI 2730-0102 Z**	**Coxsackie virus negative control**	IgA, IgG, IgM	0.1 ml 0.25 ml
CI 275a-0101 G	**antibodies against Echo virus IgG positive control**	IgG	0.1 ml
CI 275a-0101 M	**antibodies against Echo virus IgM positive control**	IgM	0.1 ml
CI 275a-0101 Z	**Echo virus negative control**	IgA, IgG, IgM	0.1 ml
CI 277a-0101-1 G	**antibodies against Sandfly fever virus IgG positive control**	IgG	0.1 ml
CI 277a-0101-1 M	**antibodies against Sandfly fever virus IgM positive control**	IgM	0.1 ml
CI 277a-0101-1 Z	**Sandfly fever virus negative control**	IgG, IgM	0.1 ml
CI 278h-0101-1 G	**antibodies against Hantavirus IgG positive control**	IgG	0.1 ml
CI 278h-0101-1 M	**antibodies against Hantavirus IgM positive control**	IgM	0.1 ml

Controls for EUROIMMUN IIFT: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CI 278h-0101-1 Z	**Hantavirus negative control**	IgG, IgM	0.1 ml
CI 2791-0101 A	**antibodies against Epstein-Barr virus capsid antigen (EBV-CA) IgA positive control**	IgA	0.1 ml
CI 2791-0101 G	**antibodies against Epstein-Barr virus capsid antigen (EBV-CA) IgG positive control**	IgG	0.1 ml
CI 2791-0101 H	**high-avid antibodies against Epstein-Barr virus capsid antigen (EBV-CA) IgG positive control**	avidity test	0.1 ml
CI 2791-0101 M	**antibodies against Epstein-Barr virus capsid antigen (EBV-CA) IgM positive control**	IgM	0.1 ml
CI 2791-0101 X	**low-avid antibodies against Epstein-Barr virus (EBV-CA) IgG positive control**	avidity test	0.1 ml
CI 2791-0101 Z	**Epstein-Barr virus (EBV) negative control**	IgA, IgG, IgM	0.1 ml
CI 2793-0101 C	**antibodies against Epstein-Barr virus nuclear antigen (EBNA) complement-binding, positive control**	IgG	0.1 ml
CI 2795-0101 A	**antibodies against Epstein-Barr virus early antigen (EBV-EA) IgA positive control**	IgA	0.1 ml
CI 2795-0101 G	**antibodies against Epstein-Barr virus early antigen (EBV-EA) IgG positive control**	IgG	0.1 ml
CI 279a-0101 G	**antibodies against Crimean Congo fever virus (CCHFV) IgG positive control**	IgG	0,1 ml
CI 279a-0101 M	**antibodies against Crimean Congo fever virus (CCHFV) IgM positive control**	IgM	0,1 ml
CI 279a-0101 Z	**Crimean Congo fever virus (CCHFV) negative control**	IgG, IgM	0.1 ml
CI 280a-0101 Z	**Rift Valley fever virus (RVFV) negative control**	IgG, IgM	0.1 ml
CI 2861-0101 A	**antibodies against Candida albicans IgA positive control**	IgA	0.1 ml
CI 2861-0101 G	**antibodies against Candida albicans IgG positive control**	IgG	0.1 ml
CI 2861-0101 M	**antibodies against Candida albicans IgM positive control**	IgM	0.1 ml
CI 2861-0101 Z	**Candida albicans negative control**	IgA, IgG, IgM	0.1 ml
CI 291a-0101 Z *	**Sindbis virus (SINV) negative control**	IgG, IgM	0.1 ml
CI 293a-0101 G **CI 293a-0102 G**	**antibodies against Chikungunya virus (CHIKV) IgG positive control**	IgG	0.1 ml 0.25 ml
CI 293a-0101 M	**antibodies against Chikungunya virus (CHIKV) IgM positive control**	IgM	0.1 ml
CI 293a-0101 Z **CI 293a-0102 Z**	**Chikungunya virus (CHIKV) negative control**	IgG, IgM	0.1 ml 0.25 ml

*) Currently not available as IVD in the European Union.
Further control sera for infectious serology upon request.

Controls for EUROLINE: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CW2000-0001 ZA	**negative control for infectious serology blot systems (IgA)**	IgA	0.1 ml
CW2000-0001 ZG	**negative control for infectious serology blot systems (IgG)**	IgG	0.1 ml
CW2000-0001 ZM	**negative control for infectious serology blot systems (IgM)**	IgM	0.1 ml
CL 2050-0107 G	**positive control serum: IgG, human, 50x concentrated for Bordetella pertussis**	IgG	0.1 ml for EUROBlotOne
CL 2111-0107 G	**positive control serum: IgG, human, 50x concentrated for Treponema pallidum**	IgG	0.1 ml
CL 2111-0107 M	**positive control serum: IgM, human, 50x concentrated for Treponema pallidum**	IgM	0.1 ml
CL 2131-0107 G	**positive control serum: IgG, human, 50x concentrated for Borrelia**	IgG	0.1 ml for EUROBlotOne
CL 2131-0107 M	**positive control serum: IgM, human, 50x concentrated for Borrelia**	IgM	0.1 ml for EUROBlotOne
CL 2410-0107-4 G	**positive control serum: IgG, human, 50x concentrated for TO.R.C.H. Profile**	IgG	0.1 ml for EUROBlotOne
CL 2410-0107-4 M	**positive control serum: IgM, human, 50x concentrated for TO.R.C.H. Profile**	IgM	0.1 ml for EUROBlotOne
CL 2790-0107-12 G	**positive control serum: IgG, human, 50x concentrated for EBV-Profil 2 G**	IgG	0.1 ml for EUROBlotOne
CL 2790-0107-12 M	**positive control serum: IgM, human, 50x concentrated for EBV-Profil 2 M**	IgM	0.1 ml for EUROBlotOne

Controls for Westernblot/EUROLINE-WB: Infectious Serology

Order No.	Control (Ready for use)	Ig Class	Format
CW2000-0001 ZA	negative control for infectious serology blot systems (IgA)	IgA	0.1 ml
CW2000-0001 ZG	negative control for infectious serology blot systems (IgG)	IgG	0.1 ml
CW2000-0001 ZM	negative control for infectious serology blot systems (IgM)	IgM	0.1 ml
CW2080-5001 A	antibodies against Helicobacter pylori IgA positive control	IgA	0.1 ml
CW2080-5001 G	antibodies against Helicobacter pylori IgG positive control	IgG	0.1 ml
CW2111-5001 G	antibodies against Treponema pallidum IgG positive control	IgG	0.1 ml
CW2111-5001 M	antibodies against Treponema pallidum IgM positive control	IgM	0.1 ml
CW2131-5001 G	antibodies against Borrelia afzelii IgG positive control (Westernblot/EUROLINE-WB)	IgG	0.1 ml
CW2131-5001 M	antibodies against Borrelia afzelii IgM positive control (Westernblot/EUROLINE-WB)	IgM	0.1 ml
CW2132-5001 G	antibodies against Borrelia burgdorferi IgG positive control	IgG	0.1 ml
CW2132-5001 M	antibodies against Borrelia burgdorferi IgM positive control	IgM	0.1 ml
CW2134-5001 G	antibodies against Borrelia garinii IgG positive control	IgG	0.1 ml
CW2134-5001 M	antibodies against Borrelia garinii IgM positive control	IgM	0.1 ml
CW2173-5001 A	antibodies against Yersinia enterocolitica IgA positive control (for diagnosing various forms of arthritis)	IgA	0.1 ml
CW2173-5001 G	antibodies against Yersinia enterocolitica IgG positive control (for diagnosing various forms of arthritis)	IgG	0.1 ml
CW2321-5001 G	antibodies against Echinococcus IgG positive control	IgG	0.1 ml
CW2531-5001 G	antibodies against Herpes simplex virus (HSV) IgG positive control	IgG	0.1 ml
CW2790-5001 G	antibodies against Epstein-Barr virus (EBV) IgG positive control	IgG	0.1 ml
CW2790-5001 M	antibodies against Epstein-Barr virus (EBV) IgM positive control	IgM	0.1 ml

EUROLINE for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DL 0160-1601 G	EUROLINE validation	IgG	EUROLINE	16 strips
DN 2050-1601 A DN 2050-24001 A	Bordetella pertussis (FHA, PT, ACT separately)	IgA	EUROLINE	16 strips 240 strips
DN 2050-1601 G DN 2050-24001 G	Bordetella pertussis (FHA, PT, ACT separately)	IgG	EUROLINE	16 strips 240 strips
DN 2111-1601 G DN 2111-6401 G	Treponema pallidum (TpN15, TpN17, TmpA, TpN47 separately)	IgG	EUROLINE	16 strips 64 strips
DN 2111-1601 M DN 2111-6401 M	Treponema pallidum (TpN15, TpN17, TmpA, TpN47 separately)	IgM	EUROLINE	16 strips 64 strips
DN 2131-3201 G DN 2131-0510 G DN 2131-24001 G	EUROLINE Borrelia-RN-AT (p18, p19, p20, p21, p58, OspC (p25), p39, p83, LBb, LBa, VlsE Bg, VlsE Bb, VlsE Ba separately)	IgG	EUROLINE	32 strips 50 strips Immunoblot-PreQ 240 strips
DN 2131-3201 M DN 2131-0510 M DN 2131-24001 M	EUROLINE Borrelia-RN-AT (OspC Bg native, OspC Bb native, OspC Ba native, p39, VlsE Bb separately)	IgM	EUROLINE	32 strips 50 strips Immunoblot-PreQ 240 strips
DN 2131-3201-2 M DN 2131-0510-2 M DN 2131-24001-2 M	EUROLINE Borrelia-RN-AT-adv (OspC-adv Bsp, OspC-adv Bg, OspC-adv Bb, OspC-adv Ba, p39, VlsE Bb separately)	IgM	EUROLINE	32 strips 50 strips Immunoblot-PreQ 240 strips
DN 2173-1601 A	Yersinia enterocolitica Detection of antibodies against virulence factors of the Yersinia enterocolitica pathogen in human serum (for diagnosing various forms of arthritis).	IgA	EUROLINE	16 strips
DN 2173-1601 G	Yersinia enterocolitica Detection of antibodies against virulence factors of the Yersinia enterocolitica pathogen in human serum (for diagnosing various forms of arthritis).	IgG	EUROLINE	16 strips
DN 2410-1601-4 G DN 2410-6401-4 G	"TO.R.C.H. Profile" (Toxoplasma gondii, Rubella virus, CMV, HSV-1, HSV-2 separately)	IgG	EUROLINE	16 strips 64 strips
DN 2410-1601-4 M DN 2410-6401-4 M	"TO.R.C.H. Profile" (Toxoplasma gondii, ROP1, Rubella virus, CMV, HSV-1, HSV-2 separately)	IgM	EUROLINE	16 strips 64 strips
DN 2410-1601-11 G DN 2410-6401-11 G	"TO.R.C.H. 10" (Toxoplasma gondii, Rubella virus, CMV, HSV-1, HSV-2, Bordetella pertussis, Chlamydia trachomatis, Parvovirus B19, Treponema pallidum, VZV separately)	IgG	EUROLINE	16 strips 64 strips
DN 2580-1601 G	Parvovirus B19 (VP1, VLP, VP2, NS1 separately)	IgG	EUROLINE	16 strips
DN 2580-1601 M	Parvovirus B19 (VP1, VLP, VP2, NS1 separately)	IgM	EUROLINE	16 strips
DN 278h-1601-1 G	Hantavirus Profile 1 (PUUV, DOBV, HTNV separately)	IgG	EUROLINE	16 strips
DN 278h-1601-1 M	Hantavirus Profile 1 (PUUV, DOBV, HTNV separately)	IgM	EUROLINE	16 strips
DN 278h-1601-2 G	Hantavirus Profile GLOBAL (PUUV, DOBV, HTNV, SEOV, SNV, ANDV separately)	IgG	EUROLINE	16 strips

EUROLINE for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DN 278h-1601-2 M	**Hantavirus Profile GLOBAL (PUUV, DOBV, HTNV, SEOV, SNV, ANDV separately)**	IgM	EUROLINE	16 strips
DN 2790-1601-2 G **DN 2790-6401-2 G**	**EBV Profile 2 (VCA gp125, VCA p19, EBNA-1, p22, EA-D separately)**	IgG	EUROLINE	16 strips 64 strips
DN 2790-1601-2 M **DN 2790-6401-2 M**	**EBV Profile 2 (VCA gp125, VCA p19, EBNA-1, p22, EA-D separately)**	IgM	EUROLINE	16 strips 64 strips

Westernblot/EUROLINE-WB for Infectious Serology (Test Systems)

Order No.	Antibodies against	Antigen and Antigen Source	Ig Class	Format
DY 2080-1601-1 A **DY 2080-3001-1 A**	**EUROLINE-WB Helicobacter pylori**	whole antigen of H. pylori, plus recombinant VacA and CagA antigen	IgA	16 strips 30 strips
DY 2080-1601-1 G **DY 2080-3001-1 G**	**EUROLINE-WB Helicobacter pylori**	whole antigen of H. pylori, plus recombinant VacA and CagA antigen	IgG	16 strips 30 strips
DY 2111-1601 G **DY 2111-2401 G**	**Treponema pallidum**	15 kDa, 17 kDa, 45 kDa (tmpA), 47 kDa	IgG	16 strips 24 strips
DY 2111-1601 M **DY 2111-2401 M**	**Treponema pallidum**	15 kDa, 17 kDa, 45 kDa (tmpA), 47 kDa	IgM	16 strips 24 strips
DY 2111-1601-1 G **DY 2111-2401-1 G**	**EUROLINE-WB Treponema pallidum plus cardiolipin**	15 kDa, 17 kDa, 45 kDa (tmpA), 47 kDa plus purified cardiolipin	IgG	16 strips 24 strips
DY 2111-1601-1 M **DY 2111-2401-1 M**	**EUROLINE-WB Treponema pallidum plus cardiolipin**	15 kDa, 17 kDa, 45 kDa (tmpA), 47 kDa plus purified cardiolipin	IgM	16 strips 24 strips
DY 2131-3001 G **DY 2131-24001 G**	**Borrelia afzelii**	whole antigen, SDS extract of Borrelia afzelii	IgG	30 strips 240 strips
DY 2131-3001 M **DY 2131-24001 M**	**Borrelia afzelii**	whole antigen, SDS extract of Borrelia afzelii	IgM	30 strips 240 strips
DY 2131-1601-1 G **DY 2131-3001-1 G** **DY 2131-24001-1 G**	**EUROLINE-WB Borrelia**	whole antigen, SDS extract of Borrelia afzelii plus VlsE	IgG	16 strips 30 strips 240 strips
DY 2131-1601-1 M **DY 2131-3001-1 M** **DY 2131-24001-1 M**	**EUROLINE-WB Borrelia**	whole antigen, SDS extract of Borrelia afzelii plus VlsE	IgM	16 strips 30 strips 240 strips
DY 2132-3001 G	**Borrelia burgdorferi**	whole antigen, SDS extract of Borrelia burgdorferi sensu stricto	IgG	30 strips
DY 2132-3001 M	**Borrelia burgdorferi**	whole antigen, SDS extract of Borrelia burgdorferi sensu stricto	IgM	30 strips
DY 2133-3001 G * **DY 2133-24001 G ***	**Borrelia burgdorferi US**	whole antigen, SDS extract of Borrelia burgdorferi	IgG	30 strips 240 strips

*) Currently not available as IVD in the European Union.

Westernblot/EUROLINE-WB for Infectious Serology (Test Systems)

Order No.	Antibodies against	Antigen and Antigen Source	Ig Class	Format
DY 2133-3001-1 M **DY 2133-24001-1 M**	**EUROLINE-WB** **Borrelia burgdorferi (USA)**	whole antigen, SDS extract of Borrelia burgdorferi plus VlsE	IgM	30 strips 240 strips
DY 2134-3001 G	**Borrelia garinii**	whole antigen, SDS extract of Borrelia garinii	IgG	30 strips
DY 2134-3001 M	**Borrelia garinii**	whole antigen, SDS extract of Borrelia garinii	IgM	30 strips
DY 2173-1601 A **DY 2173-3001 A**	**Yersinia enterocolitica** **Detection of antibodies against virulence factors of the Yersinia enterocolitica pathogen in human serum (for diagnosing various forms of arthritis).**	isolated virulence factors (release proteins, Yop) of Yersinia enterocolitica	IgA	16 strips 30 strips
DY 2173-1601 G **DY 2173-3001 G**	**Yersinia enterocolitica** **Detection of antibodies against virulence factors of the Yersinia enterocolitica pathogen in human serum (for diagnosing various forms of arthritis).**	isolated virulence factors (release proteins, Yop) of Yersinia enterocolitica	IgG	16 strips 30 strips
DY 2190-1601-1 A	**EUROLINE-WB** **Chlamydia, human pathogen**	Chlamydia trachomatis, Chlamydia pneumoniae, Chlamydia psittaci	IgA	16 strips
DY 2190-1601-1 G	**EUROLINE-WB** **Chlamydia, human pathogen**	Chlamydia trachomatis, Chlamydia pneumoniae, Chlamydia psittaci	IgG	16 strips
DY 2191-1601-1 A	**EUROLINE-WB** **Chlamydia trachomatis**	whole antigen, SDS extract of Chlamydia trachomatis plus MOMP antigen	IgA	16 strips
DY 2191-1601-1 G	**EUROLINE-WB** **Chlamydia trachomatis**	whole antigen, SDS extract of Chlamydia trachomatis plus MOMP antigen	IgG	16 strips
DY 2321-1601-1 G	**EUROLINE-WB** **Echinococcus**	Echinococcus multilocularis and Echinococcus granulosus	IgG	16 strips
DY 2531-1601-1 G	**EUROLINE-WB** **Herpes simplex virus 1 (HSV-1) plus HSV-2 type-specific glycoprotein G2**	whole antigen, SDS extract of HSV-1 plus purified gG2	IgG	16 strips
DY 2531-1601-1 M	**EUROLINE-WB** **Herpes simplex virus 1 (HSV-1) plus HSV-2 type-specific glycoprotein G2**	whole antigen, SDS extract of HSV-1 plus purified gG2	IgM	16 strips
DY 2590-2401 G	**Rubella virus**	whole antigen	IgG	24 strips
DY 2790-1601 G	**Epstein-Barr virus (EBV)**	whole antigen, SDS extract	IgG	16 strips
DY 2790-1601 M	**Epstein-Barr virus (EBV)**	whole antigen, SDS extract	IgM	16 strips

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2040-9601 G	**diphtheria toxoid**	IgG	0.01/0.1/1/2 IU/ml	96 x 01
EI 2050-9601 A	**Bordetella pertussis toxin**	IgA	2/10/25/50 IU/ml	96 x 01
EI 2050-9601 G	**Bordetella pertussis toxin**	IgG	5/25/100/200 IU/ml	96 x 01
EI 2050-9601 M	**Bordetella pertussis incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2050-9601-3 A	**Bordetella FHA**	IgA	2/10/25/50 IU/ml	96 x 01
EI 2050-9601-3 G	**Bordetella FHA**	IgG	5/25/100/200 IU/ml	96 x 01
EI 2050-9601-4 G	**Bordetella pertactin**	IgG	5/25/50/100 IU/ml	96 x 01
EI 2060-9601 G	**tetanus toxoid**	IgG	0,01/0,1/1/2/5 IU/ml	96 x 01
EI 2080-9601 A	**Helicobacter pylori**	IgA	semi-quantitative	96 x 01
EI 2080-9601 G	**Helicobacter pylori**	IgG	2/20/200 RU/ml	96 x 01
EI 2081-9601 A	**Helicobacter pylori (CagA)**	IgA	semi-quantitative	96 x 01
EI 2081-9601 G	**Helicobacter pylori (CagA)**	IgG	2/20/200 RU/ml	96 x 01
EI 2091-9601 A	**Campylobacter jejuni**	IgA	semi-quantitative	96 x 01
EI 2091-9601 G	**Campylobacter jejuni**	IgG	2/20/200 RU/ml	96 x 01
EI 2111-9601 G	**Treponema pallidum**	IgG	2/20/200 RU/ml	96 x 01
EI 2111-9601 M	**Treponema pallidum incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2111-9601 O	**Treponema pallidum Screen ELISA**	IgGM	2/20/200 RU/ml	96 x 01
EI 2111-9601-L G	**Treponema pallidum antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2132-9601 M	**Borrelia incl. IgG/RF absorbent**	IgM	2/20/200 RU/ml	96 x 01
EI 2132-9601-1 G	**Borrelia burgdorferi VlsE**	IgG	2/20/200 RU/ml	96 x 01
EI 2132-9601-2 G	**Borrelia plus VlsE**	IgG	2/20/200 RU/ml	96 x 01
EI 2132-9601-5 G	**Borrelia Select: recombinant antigens with VlsE**	IgG	2/20/200 RU/ml	96 x 01
EI 2132-9601-5 M	**Borrelia Select: recombinant antigens with OspC advanced**	IgM	2/20/200 RU/ml	96 x 01
EI 2132-9601-L G	**Borrelia PLUS VlsE antibody determination in CSF**	IgG	5/25/50/100/175/230 U	96 x 01
EI 2132-9601-L M	**Borrelia antibody determination in CSF**	IgM	5/25/50/100/175 U	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2132-9601-24 O	**Lyme ELISA**	IgGM	qualitative	96 x 01
EI 2150-9601 A	**Legionella pneumophila**	IgA	semi-quantitative	96 x 01
EI 2150-9601 G	**Legionella pneumophila**	IgG	2/20/200 RU/ml	96 x 01
EI 2150-9601 M	**Legionella pneumophila incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2173-9601 A	**Yersinia enterocolitica**	IgA	semi-quantitative	96 x 01
EI 2173-9601 G	**Yersinia enterocolitica**	IgG	2/20/200 RU/ml	96 x 01
EI 217a-9601-1 G	**Coxiella burnetii phase 1**	IgG	semi-quantitative	96 x 01
EI 217a-9601-2 G	**Coxiella burnetii phase 2**	IgG	semi-quantitative	96 x 01
EI 217a-9601-2 M	**Coxiella burnetii phase 2**	IgM	semi-quantitative	96 x 01
EI 2189-9601 G	**Brucella abortus**	IgG	2/20/200 RU/ml	96 x 01
EI 2189-9601 M	**Brucella abortus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2191-9601 A	**Chlamydia trachomatis**	IgA	semi-quantitative	96 x 01
EI 2191-9601 G	**Chlamydia trachomatis**	IgG	2/20/200 RU/ml	96 x 01
EI 2191-9601 M	**Chlamydia trachomatis incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2192-9601 A	**Chlamydia pneumoniae**	IgA	semi-quantitative	96 x 01
EI 2192-9601 G	**Chlamydia pneumoniae**	IgG	2/20/200 RU/ml	96 x 01
EI 2192-9601 M	**Chlamydia pneumoniae incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2202-9601 A	**Mycoplasma pneumoniae**	IgA	semi-quantitative	96 x 01
EI 2202-9601 G	**Mycoplasma pneumoniae**	IgG	2/20/200 RU/ml	96 x 01
EI 2202-9601 M	**Mycoplasma pneumoniae incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2212-9601 G	**Trypanosoma cruzi**	IgG	2/20/200 RU/ml	96 x 01
EI 2260-9601 G	**Plasmodium**	IgG	semi-quantitative	96 x 01
EI 2290-9601 G	**Strongyloides**	IgG	semi-quantitative	96 x 01
EI 2300-9601 G	**Schistosoma**	IgG	semi-quantitative	96 x 01
EI 2300-9601 M	**Schistosoma incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2320-9601-1 G	**Echinococcus**	IgG	semi-quantitative	96 x 01
EI 2410-9601 A	**Toxoplasma gondii**	IgA	semi-quantitative	96 x 01
EI 2410-9601 G	**Toxoplasma gondii**	IgG	1/10/200 IU/ml	96 x 01
EI 2410-9601 M	**Toxoplasma gondii incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2410-9601 P	**Toxoplasma gondii Screen**	IgAGM	semi-quantitative	96 x 01
EI 2410-9601-1 G	**Toxoplasma gondii avidity determination**	IgG	1/10/200 IU/ml	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2410-9601-L G	**Toxoplasma gondii antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2525-9601 A	**Hepatitis E virus (HEV)**	IgA	semi-quantitative	96 x 01
EI 2525-9601 G	**Hepatitis E virus (HEV)**	IgG	0,2/1/10/25 IU/ml	96 x 01
EI 2525-9601 M	**Hepatitis E virus (HEV)**	IgM	semi-quantitative	96 x 01
EI 2525-9601 P	**Hepatitis E virus (HEV)**	IgAGM	semi-quantitative	96 x 01
EI 2531-9601-1 A	**Herpes simplex virus (HSV-1/2 Pool)**	IgA	semi-quantitative	96 x 01
EI 2531-9601-1 G	**Herpes simplex virus (HSV-1/2 Pool)**	IgG	2/20/200 RU/ml	96 x 01
EI 2531-9601-1 L G	**Herpes simplex virus (HSV-1/2 Pool) antibody determination in CSF**	IgG	5/25/50/100/175/230 U/ml	96 x 01
EI 2531-9601-1 M	**Herpes simplex virus (HSV-1/2 Pool) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2531-9601-2 G	**Herpes simplex virus 1 (HSV-1)**	IgG	2/20/200 RU/ml	96 x 01
EI 2531-9601-2 M	**Herpes simplex virus 1 (HSV-1) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2532-9601-2 G	**Herpes simplex virus 2 (HSV-2)**	IgG	2/20/200 RU/ml	96 x 01
EI 2532-9601-2 M	**Herpes simplex virus 2 (HSV-2) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2570-9601 G	**Cytomegalovirus (CMV)**	IgG	2/20/200 RU/ml	96 x 01
EI 2570-9601 M	**Cytomegalovirus (CMV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2570-9601-1 G	**Cytomegalovirus (CMV) avidity determination**	IgG	2/20/200 RU/ml	96 x 01
EI 2570-9601-2 M	**Cytomegalovirus (CMV) p52 incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2570-9601-L G	**Cytomegalovirus (CMV) antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2580-9601 G	**Parvovirus B19**	IgG	1/5/25/100 IU/ml	96 x 01
EI 2580-9601 M	**Parvovirus B19 incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2590-9601 G	**Rubella virus**	IgG	1/10/50/200 IU/ml	96 x 01
EI 2590-9601 M	**Rubella virus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2590-9601-1 G	**Rubella virus avidity determination**	IgG	1/10/50/200 IU/ml	96 x 01
EI 2590-9601-2 M	**Rubella virus glycoprotein incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2590-9601-L G	**Rubella virus antibody determination in CSF**	IgG	5/25/50/100/175/230 U	96 x 01
EI 2604-9601 G	**MERS coronavirus**	IgG	semi-quantitative	96 x 01
EI 2610-9601 G	**Measles virus**	IgG	50/250/1000/5000 IU/l	96 x 01
EI 2610-9601 M	**Measles virus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2610-9601-1 G	**Measles virus avidity determination**	IgG	50/250/1000/5000/5000 IU/l	96 x 01
EI 2610-9601-4 M	**Measles virus NP: recombinant nucleoprotein incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2610-9601-L G	**Measles virus antibody determination in CSF**	IgG	5/25/50/100/175/230 U	96 x 01
EI 2630-9601 G	**Mumps virus**	IgG	2/20/200 RU/ml	96 x 01
EI 2630-9601 M	**Mumps virus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2630-9601-3 G	**Mumps virus AT: strains "Enders" and "Jeryl Lynn"**	IgG	2/20/200 RU/ml	96 x 01
EI 2630-9601-5 M	**Mumps virus G5: native antigens, genotype "G5" incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2630-9601-L G	**Mumps virus antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2650-9601 A	**Varicella zoster virus (VZV)**	IgA	semi-quantitative	96 x 01
EI 2650-9601 G	**Varicella zoster virus (VZV)**	IgG	10/100/500/5000 IU/l	96 x 01
EI 2650-9601 M	**Varicella zoster virus (VZV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2650-9601-1 G	**Varicella zoster virus (VZV) avidity determination**	IgG	10/100/500/5000 IU/l	96 x 01
EI 2650-9601-2 M	**Varicella zoster virus (VZV) glycoprotein incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2650-9601-L A	**Varicella zoster virus (VZV) antibody determination in CSF**	IgA	5/25/50/100 U	96 x 01
EI 2650-9601-L G	**Varicella zoster virus (VZV) antibody determination in CSF**	IgG	5/25/50/100/175/230 U	96 x 01
EI 2661-9601 G	**TBE virus**	IgG	2/20/200 RU/ml	96 x 01
EI 2661-9601 M	**TBE virus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2661-9601-1 G	**TBE virus avidity determination**	IgG	2/20/200 RU/ml	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2661-9601-9 G	**TBE virus Vienna**	IgG	15/150/300/1000 VIEU/ml	96 x 01
EI 2661-9601-L G	**TBE virus antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2661-9601-L M	**TBE virus antibody determination in CSF**	IgM	5/25/50/100 U	96 x 01
EI 2662-9601 G	**West Nile virus (WNV)**	IgG	2/20/200 RU/ml	96 x 01
EI 2662-9601 M	**West Nile virus (WNV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2662-9601-1 G	**West Nile virus (WNV) avidity determination**	IgG	2/20/200 RU/ml	96 x 01
EI 2663-9601 G	**Japanese encephalitis virus (JEV)**	IgG	2/20/200 RU/ml	96 x 01
EI 2663-9601 M	**Japanese encephalitis virus (JEV)**	IgM	semi-quantitative	96 x 01
EI 2667-9601 G	**Usutu virus**	IgG	2/20/200 RU/ml	96 x 01
EI 2668-9601 A	**Zika virus (ZIKV)**	IgA	semi-quantitative	96 x 01
EI 2668-9601 G	**Zika virus (ZIKV)**	IgG	2/20/200 RU/ml	96 x 01
EI 2668-9601 M	**Zika virus (ZIKV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2668-9601 Q	**Zika virus (ZIKV) incl. IgG/RF absorbent**	IgAM	semi-quantitative	96 x 01
EI 266a-9601-1 G	**Dengue virus (DENV) type 1-4**	IgG	2/20/200 RU/ml	96 x 01
EI 266a-9601-1 M	**Dengue virus (DENV) type 1-4 incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 266b-9601 A	**Dengue virus (DENV)**	IgA	semi-quantitative	96 x 01
EI 266b-9601 G	**Dengue virus (DENV)**	IgG	2/20/200 RU/ml	96 x 01
EI 266b-9601 M	**Dengue virus (DENV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2670-9601 A	**Respiratory syncytial virus (RSV)**	IgA	semi-quantitative	96 x 01
EI 2670-9601 G	**Respiratory syncytial virus (RSV)**	IgG	2/20/200 RU/ml	96 x 01
EI 2670-9601 M	**Respiratory syncytial virus (RSV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2680-9601 A	**Adenovirus**	IgA	semi-quantitative	96 x 01
EI 2680-9601 G	**Adenovirus**	IgG	2/20/200 RU/ml	96 x 01
EI 2680-9601 M	**Adenovirus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2691-9601 A	**Influenza virus type A**	IgA	semi-quantitative	96 x 01
EI 2691-9601 G	**Influenza virus type A**	IgG	2/20/200 RU/ml	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 2691-9601 M	**Influenza virus type A incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2692-9601 A	**Influenza virus type B**	IgA	semi-quantitative	96 x 01
EI 2692-9601 G	**Influenza virus type B**	IgG	2/20/200 RU/ml	96 x 01
EI 2692-9601 M	**Influenza virus type B incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2721-9601-1 A	**Parainfluenza virus types 1 - 4 (Pool)**	IgA	semi-quantitative	96 x 01
EI 2721-9601-1 G	**Parainfluenza virus types 1 - 4 (Pool)**	IgG	2/20/200 RU/ml	96 x 01
EI 2721-9601-1 M	**Parainfluenza virus types 1 - 4 (Pool) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2730-9601-1 A	**Enterovirus**	IgA	semi-quantitative	96 x 01
EI 2730-9601-1 G	**Enterovirus**	IgG	semi-quantitative	96 x 01
EI 2730-9601-1 M	**Enterovirus incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 278h-9601-1 G	**Hantavirus Pool 1 "Eurasia"**	IgG	2/20/200 RU/ml	96 x 01
EI 278h-9601-1 M	**Hantavirus Pool 1 "Eurasia" incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 278h-9601-2 G	**Hantavirus Pool 2 "America"**	IgG	2/20/200 RU/ml	96 x 01
EI 278h-9601-2 M	**Hantavirus Pool 2 "America" incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2791-9601 A	**Epstein-Barr virus capsid antigen (EBV-CA)**	IgA	semi-quantitative	96 x 01
EI 2791-9601 G	**Epstein-Barr virus capsid antigen (EBV-CA)**	IgG	2/20/200 RU/ml	96 x 01
EI 2791-9601 M	**Epstein-Barr virus capsid antigen (EBV-CA) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 2791-9601-1 G	**Epstein-Barr virus capsid antigen (EBV-CA) avidity determination**	IgG	2/20/200 RU/ml	96 x 01
EI 2791-9601-L G	**Epstein-Barr virus capsid antigen (EBV-CA) antibody determination in CSF**	IgG	5/25/50/100 U	96 x 01
EI 2793-9601 G	**Epstein-Barr virus nuclear antigen (EBNA-1)**	IgG	2/20/200 RU/ml	96 x 01
EI 2795-9601 A	**Epstein-Barr virus early antigen (EBV-EA)**	IgA	semi-quantitative	96 x 01
EI 2795-9601 G	**Epstein-Barr virus early antigen (EBV-EA)**	IgG	2/20/200 RU/ml	96 x 01
EI 2795-9601 M	**Epstein-Barr virus early antigen (EBV-EA) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 293a-9601 G	**Chikungunya virus (CHIKV)**	IgG	2/20/200 RU/ml	96 x 01

Microplate ELISA for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
EI 293a-9601 M	**Chikungunya virus (CHIKV) incl. IgG/RF absorbent**	IgM	semi-quantitative	96 x 01
EI 295c-9601 G	**Mayaro virus (MAYV)**	IgG	2/20/200 RU/ml	96 x 01
EI 295c-9601 M	**Mayaro virus (MAYV)**	IgM	semi-quantitative	96 x 01

Chemiluminescence Tests for Infectious Serology (Test Systems)

Order No.	Antibodies against	Ig Class	Calibration	Format
LI 2132-10010 G	**Borrelia**	IgG	qantitative	100 determinations for RA Analyzer 10
LI 2132-10010 M	**Borrelia**	IgM	qantitative	100 determinations for RA Analyzer 10
LI 2531-10010 G	**Herpes simplex virus 1 (HSV-1)**	IgG	qantitative	100 determinations for RA Analyzer 10
LI 2791-10010 G	**Epstein-Barr virus capsid antigen (EBV-CA)**	IgG	qantitative	100 determinations for RA Analyzer 10
LI 2791-10010 M	**Epstein-Barr virus capsid antigen (EBV-CA)**	IgM	qantitative	100 determinations for RA Analyzer 10
LI 2793-10010 G	**Epstein-Barr virus nuclear antigen (EBNA-1)**	IgG	qantitative	100 determinations for RA Analyzer 10

Control Sets for Chemiluminescence Tests

Order No.	Control Set (Ready for use)	Ig Class	Format
LR 2132-20210 G	**control set Borrelia**	IgG	2 x 0.5 ml control 1/2
LR 2132-20210 M	**control set Borrelia**	IgM	2 x 0.5 ml control 1/2
LR 2531-20210 G	**control set Herpes simplex virus 1 (HSV-1**	IgG	2 x 0.5 ml control 1/2
LR 2791-20210 G	**control set Epstein-Barr virus capsid antigen (EBV-CA)**	IgG	2 x 0.5 ml control 1/2
LR 2791-20210 M	**control set Epstein-Barr virus capsid antigen (EBV-CA)**	IgM	2 x 0.5 ml control 1/2
LR 2793-20210 G	**control set Epstein-Barr virus nuclear antigen (EBNA-1)**	IgG	2 x 0.5 ml control 1/2

Microplate ELISA for the Determination of Infectious Diseases, Antigen Detection (Test Systems)

Order No.	Analyte	Calibration	Format
EQ 266a-9601-1	**Dengue virus NS1 (DENV)**	1/10/100 RU/ml	96 x 01
EQ 6811-9601-L	**CXCL13 determination in CSF**	0/10/30/90/200/500 pg/ml	96 x 01
EQ 6911-9601	**Aspergillus antigen**	semi-quantitative	96 x 01

ELISA Controls for Infectious CSF Diagnostics

Order No.	Control (Ready for use)	Ig Class	Format
CK 2111-0220-L G	**CSQ pair of controls anti-Treponema pallidum (IgG)**	IgG	2 x 2 ml, ready for use
CK 2132-0220-L G	**CSQ pair of controls anti-Borrelia (IgG)**	IgG	2 x 2 ml, ready for use
CK 2132-0220-L M	**CSQ pair of controls anti-Borrelia (IgM)**	IgM	2 x 2 ml, ready for use
CK 2410-0220-L G	**CSQ pair of controls anti-Toxoplasma gondii (IgG)**	IgG	2 x 2 ml, ready for use
CK 2531-0220-L G	**CSQ pair of controls anti-HSV-1 (IgG)**	IgG	2 x 2 ml, ready for use
CK 2570-0220-L G	**CSQ pair of controls anti-Cytomegalovirus (IgG)**	IgG	2 x 2 ml, ready for use
CK 2590-0220-L G	**CSQ pair of controls anti-Rubella virus (IgG)**	IgG	2 x 2 ml, ready for use
CK 2610-0220-L G	**CSQ pair of controls anti-Measles virus (IgG)**	IgG	2 x 2 ml, ready for use
CK 2630-0220-L G	**CSQ pair of controls anti-Mumps virus (IgG)**	IgG	2 x 2 ml, ready for use
CK 2650-0220-L G	**CSQ pair of controls anti-VZV (IgG)**	IgG	2 x 2 ml, ready for use
CK 2661-0220-9 L G	**CSQ pair of controls anti-TBE virus Vienna (IgG)**	IgG	2 x 2 ml, ready for use
CK 2661-0220-L G	**CSQ pair of controls anti-TBE virus (IgG)**	IgG	2 x 2 ml, ready for use
CK 2661-0220-L M	**CSQ pair of controls anti-TBE virus (IgM)**	IgM	2 x 2 ml, ready for use
CK 2791-0220-L G	**CSQ pair of controls anti-EBV-CA (IgG)**	IgG	2 x 2 ml, ready for use

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2050-1005 G **FI 2050-1010 G** **FK 2050-1005** **FK 2050-1010**	**Bordetella pertussis**	IgG	bacterial smear	Bordetella pertussis	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FI 2050-1005-1 G **FI 2050-1010-1 G** **FK 2050-1005-1** **FK 2050-1010-1**	**Bordetella pertussis** **Bordetella parapertussis**	IgG	bacterial smears (2 BIOCHIPs per field)	B. pertussis B. parapertussis	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FI 2055-1005 G **FI 2055-1010 G** **FI 2055-2005 G** **FK 2055-1005** **FK 2055-1010** **FK 2055-2005**	**Bordetella parapertussis**	IgG	bacterial smear	Bordetella parapertussis	10 x 05 (test system) 10 x 10 (test system) 20 x 05 (test system) 10 x 05 (single slides) 10 x 10 (single slides) 20 x 05 (single slides)
FI 2111-1003 G **FI 2111-1005 G** **FI 2111-1010 G** **FI 2111-1005 M** **FI 2111-1010 M** **FK 2111-1005**	**Treponema pallidum (FTA-ABS)**	IgG IgM	bacterial smear verification BIOCHIP (2 BIOCHIPs per field)	T. pallidum	10 x 03 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides)
FI 2112-1005 G **FI 2112-1010 G** **FI 2112-1005 M** **FI 2112-1010 M**	**Treponema pallidum (FTA-ABS)**	IgG IgM	bacterial smears verification BIOCHIP (3 BIOCHIPs per field)	T. pallidum T. phagedenis T. pallidum T. phagedenis	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system)
FI 2132-1005 G **FI 2132-1010 G** **FI 2132-1005 M** **FI 2132-1010 M** **FK 2132-1005** **FK 2132-1010**	**Borrelia burgdorferi (CH)**	IgG IgM	bacterial smear verification BIOCHIP (2 BIOCHIPs per field)	Borrelia burgdorferi (CH)	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FI 2136-1005-1 G **FI 2136-1010-1 G** **FI 2136-1005-1 M** **FI 2136-1010-1 M**	**EUROPLUS** **Borrelia afzelii** **Borrelia burgdorferi (USA)** **OspC antigen** **VlsE antigen**	IgG IgM	4 BIOCHIPs per field: bacterial smear bacterial smear OspC BIOCHIPs VlsE BIOCHIPs	 B. afzelii B. burgd. (USA) B. burgdorferi recombinant	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system)
FI 2138-1005-2 G **FI 2138-1005-2 M**	**Borrelia afzelii** **Borrelia burgdorferi (CH)** **Borrelia burgdorferi (USA)** **Borrelia garinii**	IgG IgM	bacterial smears (4 BIOCHIPs per field)	B. afzelii B. burgdorferi (CH) B. burgdorferi (USA) B. garinii	10 x 05 (test system) 10 x 05 (test system)
FI 2141-1005-1 G **FI 2141-1010-1 G** **FK 2141-1005-1** **FK 2141-1010-1**	**Listeria monocytogenes 1/2a and 4b**	IgG	bacterial smears (2 BIOCHIPs per field)	Listeria monocytogenes 1/2a and 4b	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FI 2150-1001 P	**BIOCHIP Sequence** **Legionella pneumophila serotypes 1 - 14**	IgAGM	bacterial smears (1 BIOCHIP per serotype) verification BIOCHIP	Legionella pneumophila	10 x 01 (test system)
FI 2150-1003-3 P **FI 2150-1005-3 P**	**Legionella pneumophila** **mixture 1-4-6-8** **mixture 2-3-5-7** **mixture 9-11-13** **mixture 10-12-14**	IgAGM	bacterial smears verification BIOCHIP (5 BIOCHIPs per field)	Legionella pneumophila	10 x 03 (test system) 10 x 05 (test system)
FI 2150-1005-4 G	**Legionella Mosaic 4** **L. pneumophila mixture 5 (serotype 1-7)** **L. pneumophila mixture 6 (serotype 8-14)** **L. non pneumophila mixture 7**	IgG	4 BIOCHIPs per field: bacterial smear bacterial smear bacterial smear verification BIOCHIP	 L. pneumophila L. pneumophila 6 L. non-pneum. sp.	10 x 05 (test system)

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FR 2150-1005-4 P	**Legionella Mosaic 4 EUROPattern** **L. pneumophila mixture 5 (serotype 1-7)** **L. pneumophila mixture 6 (serotype 8-14)** **L. non pneumophila mixture 7**	IgAGM	4 BIOCHIPs per field: bacterial smear bacterial smear bacterial smear verification BIOCHIP	 L. pneumophila L. pneumophila 6 L. non-pneum. sp.	10 x 05 (test system)
FI 215b-1010 P	**Legionella pneumophila mixture 1-4-6-8**	IgAGM	bacterial smear verification BIOCHIP (2 BIOCHIPs per field)	Legionella pneumophila	10 x 10 (test system)
FI 215b-1010-1 P	**Legionella pneumophila mixture 1-4-6-8** **mixture 2-3-5-7**	IgAGM	bacterial smears verification BIOCHIP (3 BIOCHIPs per field)	Legionella pneumophila	10 x 10 (test system)
FI 216f-1005-1 P	**Mosaic Legionella non-pneumophila** **Legionella jordanis** **Legionella bozemanii** **Legionella gormanii** **Legionella micdadei** **Legionella dumoffii** **Legionella longbeachae**	IgAGM	6 BIOCHIPs per field: bacterial smears	 L. jordanis L. bozemanii L. gormanii L. micdadei L. dumoffii L. longbeachae	10 x 05 (test system)
FI 2173-1005-1 G *	**BIOCHIP Mosaic** **Yersinia enterocolitica** **O:3, O:4, O:6, O:9**	IgG	4 BIOCHIPs per field: bacterial smears	Yersinia enterocolitica	10 x 05 (test system)
FI 2191-1010 A **FI 2191-1010 G** **FI 2191-1010 M**	**Chlamydia trachomatis**	IgA EB IgG EB IgM EB	infected cells	EU 40	10 x 10 (test system) 10 x 10 (test system) 10 x 10 (test system)
FI 2191-1005-3 A **FI 2191-1010-3 A** **FI 2191-1005-3 G** **FI 2191-1010-3 G** **FI 2191-1005-3 M** **FI 2191-1010-3 M** **FK 2191-1005-3** **FK 2191-1010-3**	**Anti-Chlamydia MIF** **Chlamydia trachomatis** **Chlamydia pneumoniae** **Chlamydia psittaci**	IgA EB IgG EB IgM EB	4 BIOCHIPs per field: elementary bodies and non-infected cells	 EU 40 EU 40 EU 40	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (single slides) 10 x 10 (single slides)
FR 2191-1005-3 A **FR 2191-1010-3 A** **FR 2191-1005-3 G** **FR 2191-1010-3 G** **FR 2191-1005-3 M** **FR 2191-1010-3 M**	**Anti-Chlamydia MIF EUROPattern** **Chlamydia trachomatis** **Chlamydia pneumoniae** **Chlamydia psittaci**	IgA EB IgG EB IgM EB	4 BIOCHIPs per field: elementary bodies and non-infected cells	 EU 40 EU 40 EU 40	10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system) 10 x 05 (test system) 10 x 10 (test system)
FI 2191-1005-80 A **FI 2191-1005-80 G** **FI 2191-1005-80 M**	**Chlamydia trachomatis**	IgA EB IgG EB IgM EB	elementary bodies (MIF) non-infected cells (2 BIOCHIPs per field)	EU 40 EU 40	10 x 05 (test system) 10 x 05 (test system) 10 x 05 (test system)
FI 2192-1010 A **FI 2192-1010 G** **FI 2192-1010 M**	**Chlamydia pneumoniae**	IgA EB IgG EB IgM EB	infected cells	EU 38	10 x 10 (test system) 10 x 10 (test system) 10 x 10 (test system)
FI 2192-1005-80 A **FI 2192-1005-80 G** **FI 2192-1005-80 M**	**Chlamydia pneumoniae**	IgA EB IgG EB IgM EB	elementary bodies (MIF) non-infected cells (2 BIOCHIPs per field)	EU 40 EU 40	10 x 05 (test system) 10 x 05 (test system) 10 x 05 (test system)
FR 2192-1005-80 A **FR 2192-1005-80 G** **FR 2192-1005-80 M**	**Chlamydia pneumoniae EUROPattern**	IgA EB IgG EB IgM EB	elementary bodies (MIF) non-infected cells (2 BIOCHIPs per field)	EU 40 EU 40	10 x 05 (test system) 10 x 05 (test system) 10 x 05 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2193-1005-80 A	**Chlamydia psittaci**	IgA EB	elementary bodies (MIF)	EU 40	10 x 05 (test system)
FI 2193-1005-80 G		IgG EB	non-infected cells	EU 40	10 x 05 (test system)
FI 2193-1005-80 M		IgM EB	(2 BIOCHIPs per field)		10 x 05 (test system)
FR 2193-1005-80 A	**Chlamydia psittaci EUROPattern**	IgA EB	elementary bodies (MIF)	EU 40	10 x 05 (test system)
FR 2193-1005-80 G		IgG EB	non-infected cells	EU 40	10 x 05 (test system)
FR 2193-1010-80 G			(2 BIOCHIPs per field)		10 x 10 (test system)
FR 2193-1005-80 M		IgM EB			10 x 05 (test system)
FR 2193-1010-80 M					10 x 10 (test system)
FI 219b-1005 G	**Bartonella henselae**	IgG	infected cells	EU 70	10 x 05 (test system)
FI 219b-1010 G					10 x 10 (test system)
FI 219b-1005 M		IgM EB	infected and non-		10 x 05 (test system)
FI 219b-1010 M			infected cells		10 x 10 (test system)
			(2 BIOCHIPs per field)		
FK 219b-1005 G		IgG	infected cells		10 x 05 (single slides)
FK 219b-1010 G					10 x 10 (single slides)
FK 219b-1005 M		IgM EB	infected and non-		10 x 05 (single slides)
FK 219b-1010 M			infected cells		10 x 10 (single slides)
			(2 BIOCHIPs per field)		
FI 219b-1005-1 G	**Bartonella henselae**	IgG	infected cells	EU 70	10 x 05 (test system)
FI 219b-1010-1 G	**Bartonella quintana**		infected cells	EU 70	10 x 10 (test system)
			(2 BIOCHIPs per field)		
FI 219b-1005-1 M		IgM EB	infected and non-	EU 70	10 x 05 (test system)
FI 219b-1010-1 M			infected cells	EU 38	10 x 10 (test system)
			(4 BIOCHIPs per field)		
FK 219b-1005-1 G		IgG	infected cells	EU 70	10 x 05 (single slides)
FK 219b-1010-1 G			infected cells	EU 70	10 x 10 (single slides)
			(2 BIOCHIPs per field)		
FK 219b-1005-1 M		IgM EB	infected and non-	EU 70	10 x 05 (single slides)
FK 219b-1010-1 M			infected cells	EU 38	10 x 10 (single slides)
			(4 BIOCHIPs per field)		
FR 219b-1005-1 G	**Bartonella henselae EUROPattern**	IgG PI	infected cells	EU 70	10 x 05 (test system)
FR 219b-1010-1 G	**Bartonella quintana EUROPattern**		infected cells	EU 70	10 x 10 (test system)
			(2 BIOCHIPs per field)		
FR 219b-2010-1 M		IgM EB	infected and non-	EU 70	20 x 10 (test system)
			infected cells	EU 38	
			(4 BIOCHIPs per field)		
FI 219d-1005 G	**Bartonella quintana**	IgG	infected cells	EU 70	10 x 05 (test system)
FI 219d-1005 M		IgM EB	infected and non-	EU 38	10 x 05 (test system)
			infected cells		
			(2 BIOCHIPs per field)		
FI 2201-1005 A	**Mycoplasma hominis**	IgA EB	infected and non-	EU 38	10 x 05 (test system)
FI 2201-1005 G		IgG EB	infected cells		10 x 05 (test system)
FI 2201-1005 M		IgM EB	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 2201-1005-1 A	**Mycoplasma hominis**	IgA EB	infected cells	EU 38	10 x 05 (test system)
FI 2201-1010-1 A	**Ureaplasma urealyticum**		infected cells	EU 38	10 x 10 (test system)
FI 2201-1005-1 G		IgG EB	non-infected cells	EU 38	10 x 05 (test system)
FI 2201-1010-1 G			(3 BIOCHIPs per field)		10 x 10 (test system)
FI 2201-1005-1 M		IgM EB			10 x 05 (test system)
FI 2201-1010-1 M					10 x 10 (test system)
FR 2201-1005-1 G	**Mycoplasma hominis EUROPattern**	IgG EB	infected cells	EU 38	10 x 05 (test system)
FR 2201-1010-1 G	**Ureaplasma urealyticum EUROPattern**		infected cells	EU 38	10 x 10 (test system)
FR 2201-1005-1 M		IgM EB	non-infected cells	EU 38	10 x 05 (test system)
FR 2201-1010-1 M			(3 BIOCHIPs per field)		10 x 10 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2202-1005 A	**Mycoplasma pneumoniae**	IgA	bacteria	Mycoplasma pneumoniae	10 x 05 (test system)
FI 2202-1010 A					10 x 10 (test system)
FI 2202-2005 A					20 x 05 (test system)
FI 2202-1005 G		IgG			10 x 05 (test system)
FI 2202-1010 G					10 x 10 (test system)
FI 2202-2005 G					20 x 05 (test system)
FI 2202-1005 M		IgM			10 x 05 (test system)
FI 2202-1010 M					10 x 10 (test system)
FI 2202-2005 M					20 x 05 (test system)
FK 2202-1005					10 x 05 (single slides)
FK 2202-2005					20 x 05 (single slides)
FR 2202-1003 G	**Mycoplasma pneumoniae EUROPattern**	IgG	bacteria	Mycoplasma pneumoniae	10 x 03 (test system)
FR 2202-1005 G					10 x 05 (test system)
FR 2202-1010 G					10 x 10 (test system)
FR 2202-2005 G					20 x 05 (test system)
FR 2202-1003 M		IgM			10 x 03 (test system)
FR 2202-1005 M					10 x 05 (test system)
FR 2202-1010 M					10 x 10 (test system)
FR 2202-2005 M					20 x 05 (test system)
FI 2205-1005 A	**Ureaplasma urealyticum**	IgA EB	infected and non-infected cells (2 BIOCHIPs per field)	EU 38	10 x 05 (test system)
FI 2205-1005 G		IgG EB			10 x 05 (test system)
FI 2205-1005 M		IgM EB			10 x 05 (test system)
FI 2231-1005 A	**Leishmania donovani (promastigote)**	IgA	protozoan smear	Leishmania donovani	10 x 05 (test system)
FI 2231-1010 A					10 x 10 (test system)
FI 2231-1005 G		IgG			10 x 05 (test system)
FI 2231-1010 G					10 x 10 (test system)
FI 2231-1005 M		IgM			10 x 05 (test system)
FI 2231-1010 M					10 x 10 (test system)
FK 2231-1005					10 x 05 (single slides)
FK 2231-1010					10 x 10 (single slides)
FI 2300-1005 G	**Schistosoma mansoni**	IgG	frozen sections	Schistosoma mansoni, adult	10 x 05 (test system)
FI 2300-1005 M		IgM			10 x 05 (test system)
FK 2300-1005					10 x 05 (single slides)
FI 2320-1005 A	**Echinococcus granulosus**	IgA	frozen sections	Echinococcus protoscolices	10 x 05 (test system)
FI 2320-1005 G		IgG			10 x 05 (test system)
FI 2320-1005 M		IgM			10 x 05 (test system)
FI 2410-1005 A *	**Toxoplasma gondii**	IgA	protozoan smear	Toxoplasma gondii	10 x 05 (test system)
FI 2410-1010 A *					10 x 10 (test system)
FI 2410-1005 G		IgG			10 x 05 (test system)
FI 2410-1010 G					10 x 10 (test system)
FI 2410-1005 M		IgM			10 x 05 (test system)
FI 2410-1010 M					10 x 10 (test system)
FI 2410-1005 X		avidity test			10 x 05 (test system)
FI 2410-1010 X					10 x 10 (test system)
FK 2410-1005					10 x 05 (single slides)
FK 2410-1010					10 x 10 (single slides)
FI 2410-1005-3 G	**TO.R.C.H. Profile** **Toxoplasma gondii** **Rubella virus** **Cytomegalovirus** **HSV mixture (1+2)**	IgG	4 BIOCHIPs per field: protozoan smear infected cells infected cells infected cells	 T. gondii EU 13 EU 168 EU 38	10 x 05 (test system)
FI 2531-1005 G	**Herpes simplex virus 1 (HSV-1)**	IgG	infected cells	EU 38	10 x 05 (test system)
FI 2531-1005 M		IgM			10 x 05 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2531-1005-1 G	**BIOCHIP Mosaic**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FI 2531-1010-1 G	**HSV-1/HSV-2**		infected cells	EU 38	10 x 10 (test system)
FI 2531-2005-1 G					20 x 05 (test system)
FI 2531-1005-1 M		IgM			10 x 05 (test system)
FI 2531-1010-1 M					10 x 10 (test system)
FI 2531-2005-1 M					20 x 05 (test system)
FK 2531-1005-1					10 x 05 (single slides)
FK 2531-1010-1					10 x 10 (single slides)
FK 2531-2005-1					20 x 05 (single slides)
FI 2532-1005 G	**Herpes simplex virus 2**	IgG	infected cells	EU 38	10 x 05 (test system)
FI 2532-1005 M	**(HSV-2)**	IgM			10 x 05 (test system)
FI 2536-1005 G	**HHV-6**	IgG	infected cells	EU 30	10 x 05 (test system)
FI 2536-1010 G					10 x 10 (test system)
FI 2536-2005 G					20 x 05 (test system)
FI 2536-2010 G					20 x 10 (test system)
FI 2536-1005 M		IgM			10 x 05 (test system)
FI 2536-1010 M					10 x 10 (test system)
FI 2536-2005 M					20 x 05 (test system)
FI 2536-2010 M					20 x 10 (test system)
FK 2536-1005					10 x 05 (single slides)
FK 2536-1010					10 x 10 (single slides)
FK 2536-2005					20 x 05 (single slides)
FK 2536-2010					20 x 10 (single slides)
FR 2536-1005 G	**HHV-6 EUROPattern**	IgG EB	infected cells	EU 30	10 x 05 (test system)
FR 2536-1010 G					10 x 10 (test system)
FR 2536-2005 G					20 x 05 (test system)
FR 2536-2010 G					20 x 10 (test system)
FR 2536-1005 M		IgM EB			10 x 05 (test system)
FR 2536-1010 M					10 x 10 (test system)
FR 2536-2005 M					20 x 05 (test system)
FR 2536-2010 M					20 x 10 (test system)
FS 2536-2005					20 x 05 (single slides)
FI 2570-1005 A	**Cytomegalovirus**	IgA	infected cells	EU 168	10 x 05 (test system)
FI 2570-1010 A	**(CMV)**				10 x 10 (test system)
FI 2570-1005 G		IgG			10 x 05 (test system)
FI 2570-1010 G					10 x 10 (test system)
FI 2570-1005 M		IgM			10 x 05 (test system)
FI 2570-1010 M					10 x 10 (test system)
FI 2570-1005 X		avidity test			10 x 05 (test system)
FI 2590-1005 G	**Rubella virus**	IgG	infected cells	EU 13	10 x 05 (test system)
FI 2590-1005 X		avidity test			10 x 05 (test system)
FI 2601-1010 G	**SARS coronavirus**	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 10 (test system)
FI 2601-1010 M		IgM			10 x 10 (test system)
FI 2604-1005 G	**MERS coronavirus**	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FI 2604-1010 G					10 x 10 (test system)
FI 2604-1005 M		IgM			10 x 05 (test system)
FI 2604-1010 M					10 x 10 (test system)
FI 2610-1005 G	**Measles virus**	IgG	infected cells	EU 38	10 x 05 (test system)
FI 2610-1005 M		IgM			10 x 05 (test system)
FI 2630-1005 G	**Mumps virus**	IgG	infected cells	EU 13	10 x 05 (test system)
FI 2630-1010 G					10 x 10 (test system)
FI 2630-1005 M		IgM		EU 38	10 x 05 (test system)
FI 2630-1010 M					10 x 10 (test system)
FK 2630-1005					10 x 05 (single slides)
FK 2630-1010					10 x 10 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2650-1005 A	Varicella zoster virus (VZV)	IgA	infected cells	EU 168	10 x 05 (test system)
FI 2650-1010 A					10 x 10 (test system)
FI 2650-1005 G		IgG			10 x 05 (test system)
FI 2650-1010 G					10 x 10 (test system)
FI 2650-1005 M		IgM			10 x 05 (test system)
FI 2650-1010 M					10 x 10 (test system)
FI 2650-1005 X		avidity test			10 x 05 (test system)
FK 2650-1005					10 x 05 (single slides)
FI 2661-1005 G	TBE virus (TBEV)	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FI 2661-1010 G					10 x 10 (test system)
FI 2661-1005 M		IgM			10 x 05 (test system)
FI 2661-1010 M					10 x 10 (test system)
FK 2661-1005					10 x 05 (single slides)
FK 2661-1010					10 x 10 (single slides)
FI 2661-1005-1 G	Flavivirus Mosaic 1	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FI 2661-1010-1 G	TBE virus (TBEV)		infected cells	EU 14	10 x 10 (test system)
FI 2661-1005-1 M	West Nile virus (WNV)	IgM	infected cells	EU 14	10 x 05 (test system)
FI 2661-1010-1 M	Japanese encephalitis virus (JEV)		infected cells	EU 14	10 x 10 (test system)
	Yellow fever virus (YFV)		infected cells	EU 14	
FI 2661-1005-2 G	Flavivirus Profile 2	IgG			10 x 05 (test system)
FI 2661-2005-2 G	upper row:				20 x 05 (test system)
FI 2661-1005-2 M	TBE virus (TBEV)	IgM	infected cells	EU 14	10 x 05 (test system)
FI 2661-2005-2 M	West Nile virus (WNV)		infected cells	EU 14	20 x 05 (test system)
	Japanese encephalitis virus (JEV)		infected cells	EU 14	
	Yellow fever virus (YFV)		infected cells	EU 14	
	bottom row:				
	Dengue virus types 1 - 4 (DENV)		infected cells	EU 14	
FI 2661-1005-3 G	Flavivirus Mosaic 3	IgG	9 BIOCHIPs per field:		10 x 05 (test system)
FI 2661-1010-3 G	TBE virus (TBEV)		infected cells	EU 14	10 x 10 (test system)
FI 2661-1005-3 M	West Nile virus (WNV)	IgM	infected cells	EU 14	10 x 05 (test system)
FI 2661-1010-3 M	Japanese encephalitis virus (JEV)		infected cells	EU 14	10 x 10 (test system)
FK 2661-1005-3	Yellow fever virus (YFV)		infected cells	EU 14	10 x 05 (single slides)
FK 2661-1010-3	Dengue virus types 1 - 4 (DENV)		infected cells	EU 14	10 x 10 (single slides)
			non-infected cells	EU 14	
FI 2662-1005 G	West Nile virus (WNV)	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FI 2662-1010 G					10 x 10 (test system)
FI 2662-1005 M		IgM			10 x 05 (test system)
FI 2662-1010 M					10 x 10 (test system)
FI 2662-1005 X		avidity test			10 x 05 (test system)
FI 2662-1010 X					10 x 10 (test system)
FI 2663-1005 G	Japanese encephalitis virus (JEV)	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FI 2663-1005 M		IgM			10 x 05 (test system)
FI 2664-1005-2 G *	Arbovirus Mosaic America 2	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FI 2664-1010-2 G *	St. Louis encephalitis virus (SLEV)		infected cells	EU 14	10 x 10 (test system)
FI 2664-1005-2 M *	La crosse virus (LACV)	IgM	infected cells	EU 14	10 x 05 (test system)
FI 2664-1010-2 M *	Eastern equine encephalitis virus (EEEV)		infected cells	EU 14	10 x 10 (test system)
	Western equine encephalitis virus (WEEV)		infected cells	EU 14	
FI 2665-1005 G	Yellow fever virus (YFV)	IgG	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FI 2665-1010 G					10 x 10 (test system)
FI 2665-1005 M		IgM			10 x 05 (test system)
FI 2665-1010 M					10 x 10 (test system)
FR 2665-1005 G	Yellow fever virus (YFV) EUROPattern	IgG PI	infected and non-infected cells (2 BIOCHIPs per field)	EU 14	10 x 05 (test system)
FR 2665-1005 M		IgM PI			10 x 05 (test system)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2666-1005-2 G *	**Arbovirus Mosaic Australia 2**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FI 2666-1005-2 M *	**Murray Valley encephalitis virus (MVEV)**	IgM	infected cells	EU 14	10 x 05 (test system)
	Ross River virus (RRV)		infected cells	EU 14	
	Barmah forest virus (BFV)		infected cells	EU 14	
			non-infected cells	EU 14	
FI 2668-1005 G	**Zika virus (ZIKV)**	IgG	infected and non-	EU 14	10 x 05 (test system)
FI 2668-1010 G			infected cells		10 x 10 (test system)
FI 2668-1005 M		IgM	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 2668-1010 M					10 x 10 (test system)
FR 2668-1005 G	**Zika virus (ZIKV) EUROPattern**	IgG PI	infected and non-	EU 14	10 x 05 (test system)
FR 2668-1010 G			infected cells		10 x 10 (test system)
FR 2668-1005 M		IgM PI	(2 BIOCHIPs per field)		10 x 05 (test system)
FR 2668-1010 M					10 x 10 (test system)
FI 2668-1005-1 G	**Arbovirus Fever Mosaic 2**	IgG	6 BIOCHIPs per field:		10 x 05 (test system)
FI 2668-1010-1 G	**Zika virus (ZIKV)**		infected cells	EU 14	10 x 10 (test system)
FI 2668-1005-1 M	**Chikungunya virus (CHIKV)**	IgM	infected cells	EU 14	10 x 05 (test system)
FI 2668-1010-1 M	**Dengue virus types 1 - 4 (DENV)**		infected cells	EU 14	10 x 10 (test system)
FR 2668-1005-1 G	**Arbovirus Fever Mosaic 2 EUROPattern**	IgG PI	6 BIOCHIPs per field:		10 x 05 (test system)
FR 2668-1010-1 G	**Zika virus (ZIKV)**		infected cells	EU 14	10 x 10 (test system)
FR 2668-1005-1 M	**Chikungunya virus (CHIKV)**	IgM PI	infected cells	EU 14	10 x 05 (test system)
FR 2668-1010-1 M	**Dengue virus types 1 - 4 (DENV)**		infected cells	EU 14	10 x 10 (test system)
FI 2668-1005-3 G	**Arbovirus Profile 3**	IgG			10 x 05 (test system)
FI 2668-1005-3 M	**upper row :**	IgM			10 x 05 (test system)
	Zika virus (ZIKV)		infected cells	EU 14	
	Chikungunya virus (CHIKV)		infected cells	EU 14	
	Dengue virus types 1 - 4 (DENV)		infected cells	EU 14	
	bottom row:				
	TBE virus (TBEV)		infected cells	EU 14	
	West Nile virus (WNV)		infected cells	EU 14	
	Japanese encephalitis virus (JEV)		infected cells	EU 14	
	Yellow fever virus (YFV)		infected cells	EU 14	
FI 266a-1005-1 G	**Mosaic Dengue virus**	IgG	4 BIOCHIPs per field:		10 x 05 (test system)
FI 266a-1010-1 G	**types 1 - 4 (DENV)**		infected cells	EU 14	10 x 10 (test system)
FI 266a-2005-1 G					20 x 05 (test system)
FI 266a-1005-1 M		IgM			10 x 05 (test system)
FI 266a-1010-1 M					10 x 10 (test system)
FI 266a-2005-1 M					20 x 05 (test system)
FR 266a-1005-1 G	**Mosaic Dengue virus**	IgG PI	4 BIOCHIPs per field:		10 x 05 (test system)
FR 266a-1010-1 G	**types 1 - 4 (DENV) EUROPattern**		infected cells	EU 14	10 x 10 (test system)
FR 266a-1005-1 M		IgM PI			10 x 05 (test system)
FR 266a-1010-1 M					10 x 10 (test system)
FI 2670-1005 A	**Respiratory syncytial virus**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 2670-1005 G	**(RSV)**	IgG			10 x 05 (test system)
FI 2670-1005 M		IgM			10 x 05 (test system)
FK 2670-1005					10 x 05 (single slides)
FI 2680-1005 A	**Adenovirus**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 2680-1005 G	**type 3**	IgG			10 x 05 (test system)
FI 2680-1005 M		IgM			10 x 05 (test system)
FI 2691-1005 A	**Influenza virus type A**	IgA	infected cells	EU 50	10 x 05 (test system)
FI 2691-1005 G		IgG			10 x 05 (test system)
FI 2691-1005 M		IgM			10 x 05 (test system)
FK 2691-1005					10 x 05 (single slides)

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Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2691-1005-1 A	**Influenza virus type A**	IgA	infected cells	EU 50	10 x 05 (test system)
FI 2691-1010-1 A	**Influenza virus type B**		infected cells	EU 50	10 x 10 (test system)
FI 2691-1005-1 G		IgG	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 2691-1010-1 G					10 x 10 (test system)
FI 2691-1005-1 M		IgM			10 x 05 (test system)
FI 2691-1010-1 M					10 x 10 (test system)
FI 2692-1005 A	**Influenza virus type B**	IgA	infected cells	EU 13	10 x 05 (test system)
FI 2692-1005 G		IgG			10 x 05 (test system)
FI 2692-1005 M		IgM			10 x 05 (test system)
FI 2721-1005-1 A	**Mosaic Parainfluenza virus types 1 - 4**	IgA	4 BIOCHIPs per field: infected cells	EU 18/9	10 x 05 (test system)
FI 2721-1005-1 G		IgG			10 x 05 (test system)
FI 2721-1005-1 M		IgM			10 x 05 (test system)
FI 2730-1005-1 A	**Mosaic Coxsackie virus types A7, A9, A16, A24, B1, B2, B3, B4, B5**	IgA	9 BIOCHIPs per field: infected cells	EU 38	10 x 05 (test system)
FI 2730-1005-1 G		IgG			10 x 05 (test system)
FI 2730-1005-1 M		IgM			10 x 05 (test system)
FK 2730-1005-1					10 x 05 (single slides)
FI 2730-1005-2 A	**Mosaic Coxsackie virus A types types A7, A9, A16, A24**	IgA	4 BIOCHIPs per field: infected cells	EU 38	10 x 05 (test system)
FI 2730-1005-2 G		IgG			10 x 05 (test system)
FI 2730-2005-2 G					20 x 05 (test system)
FI 2730-1005-2 M		IgM			10 x 05 (test system)
FI 2730-2005-2 M					20 x 05 (test system)
FR 2730-2010-2 G	**Coxsackie virus screen (types A) EUROPattern types A7, A9, A16, A24**	IgG PI	4 BIOCHIPs per field: infected cells	EU 38	20 x 10 (test system)
FR 2730-2010-2 M		IgM PI			20 x 10 (test system)
FI 2730-1005-3 A	**Mosaic Coxsackie virus B types types B1, B2, B3, B4, B5, B6**	IgA	6 BIOCHIPs per field: infected cells	EU 38	10 x 05 (test system)
FI 2730-1005-3 G		IgG			10 x 05 (test system)
FI 2730-2005-3 G					20 x 05 (test system)
FI 2730-1005-3 M		IgM			10 x 05 (test system)
FI 2730-2005-3 M					20 x 05 (test system)
FR 2730-2010-3 G	**Coxsackie virus screen (types B) EUROPattern types B1, B2, B3, B4, B5, B6**	IgG PI	6 BIOCHIPs per field: infected cells	EU 38	20 x 10 (test system)
FR 2730-2010-3 M		IgM PI			20 x 10 (test system)
FI 2730-1005-4 A	**Coxsackie virus type A7**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 2730-1005-4 G	**Coxsackie virus type B1**	IgG	infected cells	EU 38	10 x 05 (test system)
FI 2730-1005-4 M		IgM	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 2730-1005-5 A	**Enterovirus Mosaic 1**	IgA	3 BIOCHIPs per field:		10 x 05 (test system)
FI 2730-1010-5 A	**Coxsackie virus type A7**		infected cells	EU 38	10 x 10 (test system)
FI 2730-1005-5 G	**Coxsackie virus type B1**	IgG	infected cells	EU 38	10 x 05 (test system)
FI 2730-1010-5 G	**Echo virus type 7**		infected cells	EU 38	10 x 10 (test system)
FI 2730-1005-5 M		IgM			10 x 05 (test system)
FI 2730-1010-5 M					10 x 10 (test system)
FK 2730-1005-5					10 x 05 (single slides)
FK 2730-1010-5					10 x 10 (single slides)
FI 2731-1005 A	**Coxsackie virus type B1**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 2731-1005 G		IgG			10 x 05 (test system)
FI 2731-1005 M		IgM			10 x 05 (test system)
FI 2737-1005 A	**Coxsackie virus type A7**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 2737-1005 G		IgG			10 x 05 (test system)
FI 2737-1005 M		IgM			10 x 05 (test system)
FI 275a-1005 A	**Echo virus type 7**	IgA	infected cells	EU 38	10 x 05 (test system)
FI 275a-1005 G		IgG			10 x 05 (test system)
FI 275a-1005 M		IgM			10 x 05 (test system)
FI 277a-1005-1 G	**Sandfly fever virus Mosaic 1 types Sicilian, Naples, Toscana, Cyprus**	IgG	4 BIOCHIPs per field: infected cells	EU 14	10 x 05 (test system)
FI 277a-1010-1 G					10 x 10 (test system)
FI 277a-1005-1 M		IgM			10 x 05 (test system)
FI 277a-1010-1 M					10 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FR 277a-1005-1 G	**Sandfly fever virus Mosaic 1**	IgG PI	4 BIOCHIPs per field:		10 x 05 (test system)
FR 277a-1005-1 M	**EUROPattern**	IgM PI			10 x 05 (test system)
	types Sicilian, Naples, Toscana, Cyprus		infected cells	EU 14	
FI 278h-1005-1 G	**Hantavirus Mosaic 1**	IgG	6 BIOCHIPs per field:		10 x 05 (test system)
FI 278h-1010-1 G	**types Hantaan, Sin Nombre, Puumala,**		infected cells	EU 14	10 x 10 (test system)
FI 278h-1005-1 M	**Dobrava, Seoul, Saaremaa**	IgM			10 x 05 (test system)
FI 278h-1010-1 M					10 x 10 (test system)
FK 278h-1005-1					10 x 05 (single slides)
FK 278h-1010-1					10 x 10 (single slides)
FR 278h-1005-1 G	**Hantavirus Mosaic 1 EUROPattern**	IgG PI	6 BIOCHIPs per field:		10 x 05 (test system)
FR 278h-1005-1 M	**types Hantaan (HTNV), Sin Nombre (SNV), Puumala (PUUV), Dobrava (DOBV), Seoul (SEOV), Saaremaa (SAAV)**	IgM PI	infected cells	EU 14	10 x 05 (test system)
FI 278h-1005-2 G	**Hantavirus Mosaic 2 Eurasia**	IgG	6 BIOCHIPs per field:		10 x 05 (test system)
FI 278h-1010-2 G	**types Hantaan, Puumala,**		infected and non-	EU 14	10 x 10 (test system)
FI 278h-1005-2 M	**Dobrava, Seoul, Saaremaa**	IgM	infected cells		10 x 05 (test system)
FI 278h-1010-2 M					10 x 10 (test system)
FK 278h-1005-2					10 x 05 (single slides)
FK 278h-1010-2					10 x 10 (single slides)
FI 278m-1005-3 G	**Hantavirus Mosaic 3: America**	IgG	2 BIOCHIPs per field:		10 x 05 (test system)
FI 278m-1005-3 M	**types Sin Nombre, Andes**	IgM	infected cells	EU 14	10 x 05 (test system)
FR 278m-1005-3 G	**Hantavirus Mosaic 3: America EUROPattern**	IgG PI	2 BIOCHIPs per field:		10 x 05 (test system)
FR 278m-1005-3 M	**types Sin Nombre, Andes**	IgM PI	infected cells	EU 14	10 x 05 (test system)
FI 2791-1005 A	**Epstein-Barr**	IgA EB	expressing cells	P3HR1	10 x 05 (test system)
FI 2791-1010 A	**virus capsid antigen**				10 x 10 (test system)
FI 2791-1005 G	**(EBV-CA)**	IgG EB			10 x 05 (test system)
FI 2791-1010 G					10 x 10 (test system)
FI 2791-2010 G					20 x 10 (test system)
FI 2791-1005 M		IgM EB			10 x 05 (test system)
FI 2791-1010 M					10 x 10 (test system)
FI 2791-2005 M					20 x 05 (test system)
FI 2791-1005 X		avidity test			10 x 05 (test system)
FK 2791-1005 A		IgA EB			10 x 05 (single slides)
FK 2791-1010 A					10 x 10 (single slides)
FK 2791-1005 G		IgG EB			10 x 05 (single slides)
FK 2791-1010 G					10 x 10 (single slides)
FK 2791-2010 G					20 x 10 (single slides)
FK 2791-1005 M		IgM EB			10 x 05 (single slides)
FK 2791-1010 M					10 x 10 (single slides)
FK 2791-2005 M					20 x 05 (single slides)
FR 2791-1005 G	**Epstein-Barr**	IgG PI	expressing cells	P3HR1	10 x 05 (test system)
FR 2791-1010 G	**virus capsid antigen**				10 x 10 (test system)
FR 2791-2010 G	**(EBV-CA) EUROPattern**				20 x 10 (test system)
FI 2791-1005-2 A	**EBV capsid antigen (EBV-CA)**	IgA EB	expressing cells	P3HR1	10 x 05 (test system)
FI 2791-1010-2 A	**EBV early antigen (EBV-EA)**		(2 BIOCHIPs per field)	EU 33	10 x 10 (test system)
FI 2791-2005-2 A					20 x 05 (test system)
FI 2791-2010-2 A					20 x 10 (test system)
FI 2791-1005-2 G		IgG EB			10 x 05 (test system)
FI 2791-1010-2 G					10 x 10 (test system)
FI 2791-2005-2 G					20 x 05 (test system)
FI 2791-1005-2 X		avidity test			10 x 05 (test system)
FK 2791-1005-2 A		IgA EB			10 x 05 (single slides)
FK 2791-1010-2 A					10 x 10 (single slides)
FK 2791-2005-2 A					20 x 05 (single slides)
FK 2791-2010-2 A					20 x 10 (single slides)
FK 2791-1005-2 G		IgG EB			10 x 05 (single slides)
FK 2791-1010-2 G					10 x 10 (single slides)
FK 2791-2005-2 G					20 x 05 (single slides)

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2791-1005-20 G	**EUROPLUS**	IgG EB	4 BIOCHIPs per field:		10 x 05 (test system)
FI 2791-1010-20 G	**EBV capsid antigen (EBV-CA)**		expressing cells	P3HR1	10 x 10 (test system)
FI 2791-1005-20 M	**gp125 antigen**	IgM EB	gp125 BIOCHIPs	native	10 x 05 (test system)
FI 2791-1010-20 M	**p19 antigen**		p19 BIOCHIPs	recombinant	10 x 10 (test system)
FK 2791-1005-20 G		IgG EB	antigen-free BIOCHIP	EU 120	10 x 05 (single slides)
FK 2791-1010-20 G					10 x 10 (single slides)
FK 2791-1005-20 M		IgM EB			10 x 05 (single slides)
FK 2791-1010-20 M					10 x 10 (single slides)
FI 2793-1010 C	**Epstein-Barr virus**	C3c EB	expressing cells	Raji	10 x 10 (test system)
FK 2793-1010	**nuclear antigen (EBNA, complement-fixing antibodies)**				10 x 10 (single slides)
FR 2793-1010 C	**Epstein-Barr virus nuclear antigen (EBNA) EUROPattern**	C3c PI	expressing cells	Raji	10 x 10 (test system)
FI 2795-1005 A	**Epstein-Barr**	IgA EB	expressing cells	EU 33	10 x 05 (test system)
FI 2795-1010 A	**virus early antigen**				10 x 10 (test system)
FI 2795-1005 G	**(EBV-EA)**	IgG EB			10 x 05 (test system)
FI 2795-1010 G					10 x 10 (test system)
FI 2795-1005 X		avidity test			10 x 05 (test system)
FK 2795-1005					10 x 05 (single slides)
FK 2795-1010					10 x 10 (single slides)
FR 2795-1010 A	**Epstein-Barr**	IgA PI	expressing cells	EU 33	10 x 10 (test system)
FR 2795-1005 G	**virus early antigen**	IgG PI			10 x 05 (test system)
FR 2795-1010 G	**(EBV-EA) EUROPattern**				10 x 10 (test system)
FS 2795-1005					10 x 05 (single slides)
FI 2799-1001-1 X	**BIOCHIP**	avidity test			10 x 01 (test system)
FI 2799-1002-1 X	**Sequence EBV**				10 x 02 (test system)
FI 2799-2001-1 X	**fields A and B: EBV-CA (IgG)**		expressing cells	P3HR1	20 x 01 (test system)
FI 2799-2002-1 X	**field C: EBV-CA (IgM)**		expressing cells	P3HR1	20 x 02 (test system)
	field D: EBV-EA		expressing cells	EU 33	
	field E: EBNA		expressing cells	Raji	
	format 1001: per slide one patient				
	format 1002: per slide two patients				
FI 2799-1001-21 X	**EUROPLUS**	avidity test			10 x 01 (test system)
FI 2799-1002-21 X	**BIOCHIP Sequence EBV**				10 x 02 (test system)
FI 2799-2001-21 X	**field A: EBV-CA (IgG), gp125 ag, p19 ag**		expr. cells, gp125/p19/	P3HR1, native/rec.	20 x 01 (test system)
FI 2799-2002-21 X			ag-free BIOCHIP	EU 120	20 x 02 (test system)
	field B: EBV-CA (IgG)		expressing cells	P3HR1	
	field C: EBV-CA (IgM), gp125 ag, p19 ag		expressing cells	P3HR1, native/rec.	
			expr. cells, gp125/p19/	EU 120	
	field D: EBV-EA		ag-free BIOCHIP	EU 33	
	field E: EBNA		expressing cells	Raji	
	format 1001: per slide one patient				
	format 1002: per slide two patients				
FI 279a-1005-2 G	**Crimean Congo fever virus Mosaic 2**	IgG EB	3 BIOCHIPs per field:		10 x 05 (test system)
FI 279a-1010-2 G	**CCHFV-GPC**		transfected cells	EU 90	10 x 10 (test system)
FI 279a-2010-2 G	**CCHFV-N**		transfected cells	EU 90	20 x 10 (test system)
FI 279a-1005-2 M		IgM EB	control transfection	EU 90	10 x 05 (test system)
FI 279a-1010-2 M					10 x 10 (test system)
FI 279a-2010-2 M					20 x 10 (test system)
FI 280a-1005 G	**Rift Valley fever virus (RVFV)**	IgG	infected and non-	EU 14	10 x 05 (test system)
FI 280a-1010 G			infected cells		10 x 10 (test system)
FI 280a-1005 M		IgM	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 280a-1010 M					10 x 10 (test system)

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2821-1001-1 G FI 2821-1002-1 G FI 2821-2002-1 G FI 2821-1001-1 M FI 2821-1002-1 M FI 2821-2002-1 M	**Respiratory Tract Profile 1 (consisting of 21 different substrates)**	IgG IgM	field A: verification BIOCHIP, RSV, Adenovirus type 3, Influenza virus type A (H1N1 and H3N2) field B: Influenza virus type B, Parainfluenza virus type 1, 2, 3 field C: Parainfluenza virus type 4, Bordetella pertussis and parapertussis, Mycoplasma pneumoniae field D: Coxsackie virus type B1 and A7, Echo virus type 7, Chlamydia pneumoniae field E: Haemophilus influenzae*, Klebsiella pneumoniae*, Legionella pneumophila serotype 1 and 12		10 x 01 (test system) 10 x 02 (test system) 20 x 02 (test system) 10 x 01 (test system) 10 x 02 (test system) 20 x 02 (test system)
FI 2822-1001-1 G FI 2822-1002-1 G FI 2822-1001-1 M * FI 2822-1002-1 M *	**Exanthema Profile 1 (consisting of 21 different substrates)**	IgG IgM	field A: verification BIOCHIP, HHV-6, Rubella virus*, Measles virus, Mumps virus field B: VZV, EBV-CA, EBV-EA, Treponema pallidum field C: HSV-1 and -2, Coxsackie virus type B1 and A9 field D: Echo virus type 7, Borrelia afzelii, burgdorferi (CH), garinii field E: CMV, Candida albicans, krusei*, tropicalis*		10 x 01 (test system) 10 x 02 (test system) 10 x 01 (test system) 10 x 02 (test system)
FI 2823-1001-1 G * FI 2823-1002-1 G * FI 2823-1001-1 M * FI 2823-1002-1 M *	**Lymphadenitis Profile 1 (consisting of 21 different substrates)**	IgG IgM	field A: verification BIOCHIP, HIV-1* and 2*, HHV-6, Rubella virus* field B: measles virus, Mumps virus, Adenovirus type 3, Parainfluenza virus type 1 field C: EBV-CA, EBV-EA, Toxoplasma gondii, Treponema pallidum field D: HSV-1 and -2, CMV, Coxsackie virus type B5 field E: Coxsackie virus type A9, Bartonella henselae, Chlamydia trachomatis and pneumoniae		10 x 01 (test system) 10 x 02 (test system) 10 x 01 (test system) 10 x 02 (test system)
FI 2824-1001-1 G FI 2824-1002-1 G FI 2824-1001-1 M * FI 2824-1002-1 M *	**Central Nervous System Profile 1 (consisting of 21 different substrates)**	IgG IgM	field A: verification BIOCHIP, Rubella virus*, Measles virus, Mumps virus, VZV field B: Adenovirus type 3, EBV-CA, Treponema pallidum, Toxoplasma gondii field C: HSV-1 and -2, Coxsackie virus type B1 and A7 field D: Echo virus type 7, Borr. afzelii, burgdorferi (CH), garinii field E: CMV, Haemophilus influenzae*, Listeria monocytogenes 1/2a und 4b		10 x 01 (test system) 10 x 02 (test system) 10 x 01 (test system) 10 x 02 (test system)
FI 2825-1001-1 G FI 2825-1002-1 G FI 2825-1001-1 M FI 2825-1002-1 M	**Myocarditis Profile 1 (consisting of 17 different substrates)**	IgG IgM	field A: verification BIOCHIP, Mumps virus, Adenovirus type 3, Influenza virus type A (H1N1 and H3N2) field B: Influenza virus Typ B, Parainfluenza virus type 1 and 2, Mycoplasma pneumoniae field C: CMV, Coxsackie virus type B1 and A16, Echo virus type 7 field D: Borrelia afzelii, burgdorferi (CH), garinii, Chlamydia pneumoniae		10 x 01 (test system) 10 x 02 (test system) 10 x 01 (test system) 10 x 02 (test system)

*) Currently not available as IVD in the European Union.

Diagnostics for Indirect Immunofluorescence: Infectious Serology

Order No.	Antibodies against	Ig Class	Substrate	Species	Format Slides x Fields
FI 2826-1001-1 G	**Infectious Arthritis Profile 1**	IgG	field A: verification BIOCHIP, VZV,		10 x 01 (test system)
FI 2826-1002-1 G	**(consisting of 13 different substrates)**		Influenza virus type A (H1N1		10 x 02 (test system)
FI 2826-1001-1 M		IgM	and H3N2) and B		10 x 01 (test system)
FI 2826-1002-1 M			field B: Yersinia enterocolitica O:3*, O:6*, O:9*, Toxoplasma gondii field C: Borrelia afzelii, burgdorferi (CH), garinii, Chlamydia trachomatis		10 x 02 (test system)
FI 2861-1003 A	**Candida albicans**	IgA	fungal smear	Candida albicans	10 x 03 (test system)
FI 2861-1005 A					10 x 05 (test system)
FI 2861-1010 A					10 x 10 (test system)
FI 2861-1003 G		IgG			10 x 03 (test system)
FI 2861-1005 G					10 x 05 (test system)
FI 2861-1010 G					10 x 10 (test system)
FI 2861-1003 M		IgM			10 x 03 (test system)
FI 2861-1005 M					10 x 05 (test system)
FI 2861-1010 M					10 x 10 (test system)
FI 291a-1005 G *	**Sindbis virus (SINV)**	IgG	infected and non-	EU 14	10 x 05 (test system)
FI 291a-1010 G *			infected cells		10 x 10 (test system)
FI 291a-1005 M *		IgM	(2 BIOCHIPs per field)		10 x 05 (test system)
FI 291a-1010 M *					10 x 10 (test system)
FI 293a-1005 G	**Chikungunya virus (CHIKV)**	IgG	infected and non-	EU 14	10 x 05 (test system)
FI 293a-1010 G			infected cells		10 x 10 (test system)
FI 293a-2005 G			(2 BIOCHIPs per field)		20 x 05 (test system)
FI 293a-1005 M		IgM			10 x 05 (test system)
FI 293a-1010 M					10 x 10 (test system)
FI 293a-2005 M					20 x 05 (test system)
FK 293a-1005					10 x 05 (single slides)
FK 293a-1010					10 x 10 (single slides)
FK 293a-2005					20 x 05 (single slides)
FR 293a-1005 G	**Chikungunya virus (CHIKV) EUROPattern**	IgG PI	infected and non-	EU 14	10 x 05 (test system)
FR 293a-1010 G			infected cells		10 x 10 (test system)
FR 293a-1005 M		IgM PI	(2 BIOCHIPs per field)		10 x 05 (test system)
FR 293a-1010 M					10 x 10 (test system)
FI 293a-1005-1 G	**Arbovirus Fever Mosaic 1**	IgG	6 BIOCHIPs per field:		10 x 05 (test system)
FI 293a-1010-1 G	**Chikungunya virus (CHIKV)**		infected cells	EU 14	10 x 10 (test system)
FI 293a-1005-1 M	**Japanese encephalitis virus (JEV)**	IgM	infected cells	EU 14	10 x 05 (test system)
FI 293a-1010-1 M	**Dengue virus types 1 - 4 (DENV)**		infected cells	EU 14	10 x 10 (test system)

*) Currently not available as IVD in the European Union.

Allergy diagnostics

Specific IgE

Inhalation · Food · Atopy

For more information on this subject scan the QR code or enter the Quick Link code q002 at www.euroimmun.com

Inhalation

Clinical information: In the case of inhalation allergies, the allergens enter the body through the air and through the mucous membranes, leading to measurable IgE concentrations against a specific allergen source. Seasonal allergens (pollen from trees, grasses and herbs) play a role, as do also indoor allergens (house dust mites, domestic animals and mould spores) which occur the whole year round. The symptoms generally occur shortly after contact with the allergen. These allergies are therefore called immediate type reactions, which can be found in more than 15% of the population in industrialised countries. If a systemic allergic reaction occurs, serious, even life-threatening reactions can result (anaphylactic shock). Typical allergic reactions are rhinitis, conjunctivitis and allergic asthma. Allergic rhinitis is increasing worldwide, with a prevalence of 10 to 40% in various regions.

Diagnostics: A confirmed allergy diagnosis demands an extensive patient anamnesis and various diagnostic methods (in vivo and in vitro tests), depending on the patient's clinical symptoms. In vitro diagnostics are based on the detection of total and specific IgE (sIgE) in serum or plasma. In individual cases, provocation tests can be additionally performed to help with the diagnosis. The results of the various diagnostic methods are of equal value and complement each other. All individual results must always be interpreted within the context of the anamnesis and the clinical findings.

Various **inhalation profiles** (EUROLINE) or single antigens (Allercoat™, page 226) are available for the clarification of inhalation allergies. Depending on the test system, these permit semi-quantitative or quantitative in vitro determination of human IgE antibodies against the most frequent inhalation allergens in serum or in plasma. Moreover, **country-specific inhalation profiles** are available, which offer different allergen compositions optimised with regard to regional relevance.

In addition, the total IgE concentration in the serum can be determined using the Total IgE ELISA to allow differentiation between allergic and intrinsic asthma, between allergic and vasomotor rhinitis and between atopic and seborrhoeic dermatitis.

Product overview

Method	Substrate	Application	Order number	Page
EUROLINE*	Inhalation (g1, g3, g6, g12, t2, t3, t4, t7, w1, w6, w9, d1, d2, e1, e2, e3, m1, m2, m3, m6, CCD)	Efficient screening for sIgE against the most important inhalation allergens	DP 3110-1601 E	231
	Paediatric Inhalation (g6, g12, t2, t3, t4, w6, w8, w9, d1, d2, e1, e2, e3, e6, e82, e84, m1, m2, m3, m6, CCD)	Efficient screening for sIgE against inhalation allergens relevant in childhood	DP 3111-1601 E	231
ELISA	Total IgE	ELISA for quantitative determination of human IgE in serum	EV 3840-9601 E	136

*) Further profiles from page 231

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Specific IgE

Inhalation · Food · Atopy

For more information on this subject scan the QR code or enter the Quick Link code q003 at www.euroimmun.com

Food

Clinical information: In food allergies, the IgE-induced immune reaction can lead to symptoms such as burning or itching in the oral cavity, nausea, gastrointestinal spasms, diarrhoea and skin rashes within a short period after ingesting the food. Severe reactions can also result in asthma attacks, breathlessness, increased heart rate or in panic attacks and confusion. In rare cases, an anaphylactic shock can occur. Foods that most frequently cause allergic reactions include nuts (in particular peanuts), soy, wheat, fish, milk and eggs. With a prevalence of 5 to 10%, primary allergic sensitisations to foods play an important role, particularly in babies and infants. Food allergies in adults occur with a prevalence of 1 to 5%.

Diagnostics: Various food allergy profiles (EUROLINE) and single antigens (Allercoat™, page 226) are available for the clarification of food allergies. Depending on the test system, these permit semi-quantitative or qualitative in vitro determination of human IgE antibodies against the most frequent food allergens in serum or in plasma. Moreover, country-specific food allergy profiles are available which have been developed with regard to the regional eating habits.

In addition, the total IgE concentration in the serum can be determined using the Total IgE ELISA.

Product overview

Method	Substrate	Application	Order number	Page
EUROLINE*	Food (f1, f75, f2, f45, f4, f5, f9, f13, f14, f17, f20, f49, f84, f237, f25, f31, f35, f85, f3, f23, CCD)	Efficient screening for IgE antibodies against the most important food allergens	DP 3410-1601 E	232
	Food "Gulf" (f1, f75, f2, f105, f4, f14, f45, fs36, f13, f92, f33, f44, f93, f25, f31, f48, f83, f88, f3, f23, CCD)	Efficient screening for sIgE against the relevant regional food allergens	DP 3416-1601 E	233
	Food "Turkey 1" (f1, f75, f2, f169, f78, f4, f79, f9, f14, f10, f13, f17, f144, u87, f222, f73, f33, f44, f49, f92, f84, f146, f328, f25, f31, f35, f48, f95, f97, f122, f132, fs14, fs10, fs43, f83, CCD)		DP 3420-1601-11 E	233
ELISA	Total IgE	ELISA for quantitative determination of human IgE in serum	EV 3840-9601 E	136

*) Further profiles from page 231

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Specific IgE

Inhalation · Food · Atopy

For more information on this subject scan the QR code or enter the Quick Link code q001 at www.euroimmun.com

Atopy

Clinical information: Atopy is a genetic predisposition to allergic hypersensitivity reactions which can have various clinical manifestations. The allergens responsible for the reaction enter the body either through the air and the mucous membranes (in the case of inhalation allergies), or through food ingestion (in the case of food allergies). However, allergic reactions to foods of plant origin can also be caused by cross-reacting IgE antibodies. These reactions, termed cross-allergies, are based on the structural similarity between proteins which are present in both the food as well as in the corresponding inhalation allergens of plant origin. An example of this is the phenomenon known as "oral allergy syndrome" (OAS). Accordingly, patients with a primary birch pollen allergy can also develop allergic reactions to apple, celery, hazelnut, potato or kiwi. Multiple sensitisations to allergens of different origin are therefore not uncommon.

Diagnostics: Various **atopy profiles** (EUROLINE) are available for the clarification of multiple sensitisations. These permit the simultaneous in vitro determination of human IgE antibodies against the most frequent inhalation and food allergens in serum or in plasma. Moreover, **country-specific profiles** are available which take into account the characteristics of the regional allergen exposure.

In addition, the total IgE concentration in the serum can be determined using the Total IgE ELISA.

Product overview

Method	Substrate	Application	Order number	Page
EUROLINE*	Atopy (g6, g12, t3, w6, d1, e1, e2, e3, m2, m6, f1, f2, f3, f4, f9, f14, f17, f31, f35, f49, CCD)	Efficient screening for sIgE antibodies against the most important inhalation and food allergens	DP 3710-1601 E	235
	Paediatrics (gx, t3, w6, d1, d2, e1, e2, e3, m2, m3, m6, f1, f75, f2, f3, f76, f77, f78, e204, f4, f9, f14, f13, f17, f31, f35, f49, CCD)	Efficient screening for sIgE against inhalation and food allergens relevant in childhood	DP 3712-1601 E	235
ELISA	Total IgE	ELISA for quantitative determination of human IgE in serum	EV 3840-9601 E	136

*) Further profiles from page 231

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Molecular allergy diagnostics

DPA-Dx (Defined partial allergen diagnostics) · Insect venoms

For more information on this subject scan the QR code or enter the Quick Link code q039 at www.euroimmun.com

DPA-Dx (Defined partial allergen diagnostics)

Indication: Allergy sufferers frequently exhibit specific IgE antibodies to various allergen sources. Such multiple sensitisation patterns are often caused by **cross-reactions** of IgE antibodies against single, structurally similar proteins (components) from the allergen sources.
In defined partial allergen diagnostics (DPA-Dx), in contrast to classic extract-based allergy diagnostics, single purified allergen components are used. This approach allows identification of the components responsible for the sensitisation and enables, for example:

– Assessment of the risk of a severe systemic reaction to the allergen

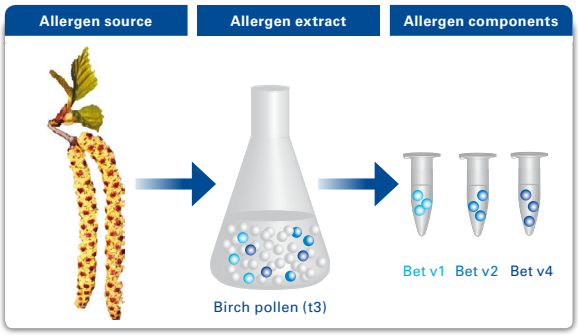
– Differentiation of a primary sensitisation from cross-reactivity. In the latter the patient should be advised about the allergen sources that could trigger a reaction.

– Selection of suitable patients for specific immunotherapy (SIT)

– Evaluation of the likelihood of tolerance induction

Diagnostics: Use of DPA-Dx systems is especially relevant for the differential diagnosis of inhalation, food and insect venom allergies.

Inhalation allergy: In allergy patients with multiple pollen sensitisations, DPA-Dx offers the possibility to differentiate between primary and cross sensitisations. This differentiation delivers important information for the targeted selection of suitable immunotherapy. For the analysis of multiple pollen sensitisations, allergen components of birch (Bet v 1 (t215), Bet v 2 (t216), Bet v 4 (t220) and Bet v 6 (t225)) and grasses (Phl p 1 (g205), Phl p 5 (g215), Phl p 7 (g210) and Phl p 12 (g212)) have been defined as markers for primary or cross sensitisation.



Food allergy: In the area of food allergies, allergen components allow assessment of the risk of a severe reaction and evaluation of the possible development of tolerance. Moreover, primary allergies can be differentiated from pollen-associated food allergies. This allows a targeted statement concerning therapy and food elimination.

Insect venom allergy: 50% of insect venom allergy sufferers show a double sensitisation to bee and wasp venom in extract-based allergy diagnostics. In these cases it is necessary to determine if the patient has a genuine primary sensitisation to both venoms or if the result is due to cross-reactivity. The use of species-specific components in DPA-Dx provides diagnostic clarification, enabling selection of suitable immunotherapy.

Product overview

Method	Substrate	Application	Order number	Page
EUROLINE*	DPA-Dx Pollen 1 (t3, g6, t215, t216, t220, t225, g205, g215, g210, g212, CCD)	Component-resolved differential diagnostics for multiple pollen sensitisations (birch, timothy)	DP 3210-1601-1 E	232
	DPA-Dx Paediatrics 1 (f427, f424, f423, f422, f356, f323, f233, f232, e204, f334, f78, f77, f76, t215, CCD)	Component-resolved differential diagnostics for food allergies (milk, egg, peanut) in infants	DP 3812-1601-1 E	236
	DPA-Dx Peanut 1 (t215, f422, f423, f424, f427, f429, f444, f445, CCD)	Component-resolved differential diagnostics for peanut allergies	DP 3511-1601-1 E	234
	DPA-Dx Insect Venoms 2 (i1, i208, i211, i213, i216, i3, i209, CCD)	Component-resolved differential diagnostics for insect venom allergies	DP 3850-1601-2 E	236

*) Further profiles from page 231

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code g079 at www.euroimmun.com

Molecular allergy diagnostics

DPA-Dx (Defined partial allergen diagnostics) · Insect venoms

For more information on this subject scan the QR code or enter the Quick Link code q028 at www.euroimmun.com

Insect venoms

Clinical information: Localised pain, swelling, itching and redness occur as normal reactions to an insect bite. An allergic reaction to an insect bite, in contrast, can occur within minutes or not until hours later. The faster the symptoms occur, the more severe the allergic reaction. With further insect bites, the symptoms can continuously worsen.

According to estimations, around 1 to 7% of the population in Central Europe react to insect venoms. In persons who are allergic to insect venoms, severe systemic reactions can occur, which manifest with the formation of urtica, swelling, itching and redness at sites other than the puncture, swelling of the throat and tongue, difficulty in breathing, nausea, gastrointestinal cramps, diarrhoea, neurological deficiencies with confusion, dizziness and gait disorder, as well as raised pulse and fall in blood pressure. An allergic reaction of the immune system to the insect venom can also lead to an anaphylactic shock and thus be life-threatening.

Diagnostics: In suspected cases of insect venom allergy, differential diagnostics is recommended for exact identification of the allergy-inducing species. Specific IgE antibodies against bee and wasp venom, as the most common insect venoms, can be detected with the help of multiparameter tests. Besides the previously used natural **insect venom extracts**, recombinant **species-specific allergy components** (defined partial allergen diagnostics, DPA-Dx) are also available for a refined serological diagnosis. Using the EUROLINE DPA-Dx Insect Venoms 2, antibodies against the natural insect venom extracts and against specific molecular antigens for bee and wasp venom (rApi m1, rApi m2, rApi m10, rVes v1 and rVes v5), as well as against CCD (cross-reactive carbohydrate determinant) as a marker for cross-reactivity between the insect venoms can be determined simultaneously in one process. The detection of a primary sensitisation to bee or wasp venom, or of a genuine double sensitisation with comparison to a cross-reaction is made with this test.

In addition, the total IgE concentration in the serum can be determined using the Total IgE ELISA.

Product overview

Method	Substrate	Application	Order number	Page
EUROLINE*	Insect Venoms (i1, i3, CCD)	Extract-based differentiation of bee and wasp venom allergies	DP 3720-1601 E	236
	DPA-Dx Insect Venoms 2 (i1, i208, i211, i213, i216, i3, i209, CCD)	Component-resolved differential diagnostics for insect venom allergies	DP 3850-1601-2 E	236
ELISA	Total IgE	ELISA for quantitative determination of human IgE in serum	EV 3840-9601 E	136

*) Further profiles from page 231

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q075 at www.euroimmun.com

Monospecific allergy diagnostics

Allercoat™ 6

For more information on this subject scan the QR code or enter the Quick Link code q148 at www.euroimmun.com

Allercoat™ 6

The Allercoat™ 6 System from EUROIMMUN is based on the ELISA technique and provides quantitative, semi-quantitative and qualitative in vitro single determinations of human IgE antibodies against inhalation, food, environmental and occupational allergens, as well as against insect venoms and pharmaceutical drugs.

■ **Test principle:** The allergens are coupled to paper rings, which are placed in the cavities of a microplate before the ELISA is performed. These are then incubated successively with patient serum, alkaline phosphatase (AP)-labelled anti-human IgE and substrate solution. The concentration of specific IgE antibodies is calculated by photometric measurement of the dye produced, with reference to the provided calibrators.

Sensitisations to haptens are detected by incubating rings containing the hapten coupled to human serum albumin (HSA). An HSA ring is additionally incubated per patient as a blank. Quantitative detection of hapten-specific IgE antibodies is not possible. Evaluation is therefore qualitative and patient-specific, and is performed using the following quotient (Q):

$$Q = \frac{\text{Extinction allergen}}{\text{Extinction HSA}}$$

Q > 2.0 sensitisation positive
Q < 2.0 sensitisation negative

Details on Allercoat™ 6:

■ Over 650 allergens and allergen mixtures available (separate catalogue available online)

■ Automated processing with common ELISA instruments possible

■ Customised laboratory software for flexible automation of the Allercoat™ 6 system available (EUROIMMUN Allercoat Software)

■ EAST class designation of semiquantitative and quantitative results

■ Basic reagents: conjugate package (contains conjugate, washing solution, substrate buffer and stop solution), reference set (contains reference rings and 6 calibrators), positive and negative control sera

Product overview

Method	Substrate	Application	Order number	Page
Allercoat™ 6	Basic components: conjugate package, reference set, positive and negative control sera	Required basic components for performing Allercoat™ 6	ZP-####	232
	Inhalation, food, environmental and occupational allergens, insect venoms, pharmaceutical drugs	Single determinations of sIgE against diverse allergens	EP-####	*

***) To view all Allercoat™ 6 products** scan the QR code or enter the Quick Link code q148 at www.euroimmun.com

Products for allergy diagnostics

Format

- 0501: 5 slides to be incubated with 1 patient serum each
- 0502: 5 slides to be incubated with 2 patient sera each
- 1001: 10 slides to be incubated with 1 patient serum each
- 1601: 16 single test strips
- 0110: 10 paper rings with allergen
- 0125: 25 paper rings with allergen
- 9601: 96 individual break-apart wells (12 microplate strips, 8 wells each)

DP **3210** - **1601** **-1** **E**

Immunoglobulin class
E: IgE

Product code

Product classification

***) To view all Allercoat™ 6 products** scan the QR code or enter the Quick Link code q148 at www.euroimmun.com

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the serological investigation.

Test systems which do not appear in this catalogue can be made to specification. Apart from the customary package sizes and slide formats, special sizes are available as well. Quotations can be provided upon request.

EUROASSAY for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format Slides x Fields
DE 3110-1001 E	inhalation (g1, g3, g6, g12, t2, t3, t4, t7, w1, w8, w6, w9, d1, d2, es4, e2, e3, e6, e1, e82, e84, m1, m2, m3, m6, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3110-1001-2 E	inhalation 2 (t3, t4, t15, t2, gx2, g12, d1, w6, w1, d2, e1, e2, m6, m2, t7, t11, t23, g6, i6, d70, w21, w9, d71, e3, u85, d72, m3, m1, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3210-0501-1 E	DPA-Dx pollen 1 (t3, g6, t215, t216, t220, t225, g205, g215, g210, g212, CCD)	IgE	EUROASSAY strip with allergens	05 x 01
DE 3410-1001 E	food (f1, f75, f2, f78, f45, f4, f5, f9, f14, f10, f13, f17, f20, f84, f95, f237, f25, f31, f35, f85, f3, f23, f49, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3410-1001-2 E	food 2 (f47, f26, f75, f90, f10, f78, f89, u87, f35, f95, f329, f84, f24, f20, f1, f13, f5, f2, f14, f4, f25, f85, f31, f33, f92, f49, f17, f3, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3511-0501-1 E	DPA-Dx peanuts 1 (t215, f422, f423, f424, f429, f445, f444, f427, CCD)	IgE	EUROASSAY strip with allergens	05 x 01
DE 3712-1001 E	pediatrics/atopy (g6, g12, t3, w6, d1, d2, e1, e2, e3, m2, m3, m6, f1, f75, f3, f2, f76, f77, f78, e204, f4, f9, f14, f13, f17, f31, f35, f49, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3712-1001-2 E	pediatrics/atopy 2 (t3, t4, t15, t2, gx2, g12, d1, w6, w1, d2, e1, e2, m6, m2, f1, f13, f5, f2, f14, f4, f25, f85, f31, f33, f92, f49, f17, f3, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3812-1001-1 E	DPA-Dx pediatrics 1 (t215, f76, f77, f78, f334, e204, f232, f233, f323, f356, f422, f423, f424, f427, CCD)	IgE	EUROASSAY strip with allergens	10 x 01
DE 3850-0501-3 E	DPA-Dx insect venoms 3 (i1, i3, i75, i208, i213, i216, i209, i211, CCD)	IgE	EUROASSAY strip with allergens	05 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3110-1601 E DP 3110-6401 E DP 3110-1601 SE	inhalation (g1, g3, g6, g12, t2, t3, t4, t7, w1, w6, w9, d1, d2, e1, e2, e3, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01 16 x 01
DP 3110-1601-1 E	inhalation 2 (g6, g12, t2, t3, t4, w6, w9, d1, d2, e1, e2, e3, e6, e82, e84, es4, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3110-1601-3 E	inhalation 3 (t3, t4, t7, t9, t11, t15, t23, g2, g3, g6, g8, g12, g101, u85, w1, w6, w9, w21, e1, e5, e3, e82, m3, m5, m6, i6, d1, d2, d70, d201, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3111-1601 E	pediatric inhalation (g6, g12, t2, t3, t4, w6, w8, w9, d1, d2, e1, e2, e3, e6, e82, e84, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3112-1601 E	Mediterranean inhalation (g2, g6, t3, t4, t9, t11, t23, t210, w1, w6, w9, w19, d1, d2, d70, e1, e2, e3, m2, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3112-1601-2 E	Mediterranean inhalation 2 (d1, d2, d70, d71, d201, e1, e2, e3, m2, m3, m6, i6, g2, g3, g5, g6, g8, g12, t2, t3, t4, t9, t11, t23, w1, w6, w9, w10, w11, w19, w21, u85, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3113-1601 E	inhalation "South East Asia" (ts19, t104, t19, t223, gs1, ds1, i6, u134, e1, e2, es172, e6, e71, e82, e84, ms1, ms4, m5, m12, m45, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3116-1601-2 E	inhalation "China 2" (ds1, h1, i6, e1, e2, ms1, ts20, u80, w1, w6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3117-1601 E	inhalation "Middle East" (g1, g6, g12, t2, t3, t7, t9, w1, w6, w8, d1, d2, i6, e1, e84, m1, m2, m3, m5, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3118-1601 E	inhalation "Gulf" (g6, g12, t2, t3, t7, t9, w1, w6, d1, d2, i6, e1, e2, e3, e17, m1, m2, m3, m5, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3119-1601-2 E	inhalation "Top Screen" (ds1, e1, e2, e81, gs12, g12, t3, t9, w1, w6, w19, m2, IgE, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3119-1601-11 E	inhalation "Turkey 1" (gs12, gs15, gs21, g12, ts23, ts24, t9, t70, ws18, ws19, ws20, d1, d2, i6, es2, es172, e1, e2, e3, e4, e80, e81, e84, ms11, ms12, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3120-1601 E	inhalation "India" (g6, g12, g20, t18, w4, w27, w29, ds1, d2, i6, e1, e2, e11, e85, m3, m37, u81, u126, u129, u140, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3120-1601-2 E	inhalation "India 2" (g2, g6, g10, g12, g20, t18, t20, w6, w10, w13, w14, w27, w29, ds1, d2, i6, m1, m2, m3, m4, m5, m6, m11, m16, m37, e1, e2, e11, e85, u81, u126, u129, u140, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3122-1601 E	inhalation "France" (t3, t4, t9, t7, t11, t23, g6, g2, w9, w1, w6, w19, e1, e5, e3, m3, m6, d1, d2, d70, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3122-1601-2 E	inhalation "France 2" (t3, t7, t9, t11, t23, t15, g6, g2, g101, g8, g12, w9, w6, w21, w1, e1, e5, e82, m3, m6, i6, d1, d2, d70, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3123-1601-2 E	inhalation "Lebanon 2" (g6, g2, g12, g101, w7, w19, w21, ws24, t2, t3, t7, t9, t16, t23, ts32, m1, m2, m3, m5, m6, d1, d2, e1, e2, e3, e85, es170, es172, u85, u140, i1, i3, i6, i71, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3124-1601 E	inhalation "Screen South Africa" (ts19, ts29, gs1, ws21, e1, e2, hs12, ms1, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3126-1601 E	inhalation "Mexico" (g2, g5, g6, g10, g14, t3, t7, t19, t210, t20, t14, t15, w1, w4, w6, w8, w10, w11, w14, w15, w100, d1, d2, h1, i6, e1, e2, es4, m1, m2, m3, m6, m20, m5, m11, m14, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3127-1601-1 E	inhalation "Ukraine 1" (d1, d2, e1, e2, e3, e6, e82, e84, t2, t3, t4, t7, g6, g12, w6, w9, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3128-1601 E	inhalation trees (t1, t2, t3, t4, t5, t7, t15, t12, t14, t16, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3129-1601 E	inhalation grass and weeds (g1, g3, g6, g12, w1, w6, w9, w10, w103, w203, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3130-1601 E	inhalation animals (e1, e2, e3, e6, e71, e73, e82, e84, es7, es172, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3131-1601 E	inhalation indoor allergens (ds1, es2, i6, e7, m1, m2, m3, m5, m6, m37, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3132-1601 E	inhalation "Maghreb" (g2, g3, g6, g8, g12, t3, t5, t7, t9, t11, t15, t18, t19, t23, w1, w4, w6, w7, w9, w10, w21, d1, d2, i6, e1, e2, e3, m3, m5, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3133-1601-1 E	inhalation "Iran 1" (e1, e2, e3, e4, e81, es2, es172, g1, g3, g12, g14, g16, w6, w9, w10, w11, w14, w17, w28, w100, t1, t15, t16, t70, ts22, ts26, i1, i6, h1, d1, d2, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3135-1601-1 E	inhalation "Venezuela 1" (g2, g5, g10, w6, w8, w9, w14, e1, e2, e78, e85, e86, e111, u85, m1, m2, m3, m5, m6, d1, d2, d201, i1, i2, i3, i4, i70, i71, i100, p1, p2, p4, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3136-1601-1 E DP 3136-6401-1 E	inhalation "California 1" (g2, g5, g6, g10, t1, t2, t3, t6, t7, t8, t9, t10, t11, t14, t19, t70, t15, w1, w6, w11, w14, w100, w103, e1, e2, e72, d1, d2, i6, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01
DP 3138-1601-1 E	inhalation "Iraq 1" (e1, e2, e3, e4, e81, es2, es172, g1, g3, g12, g14, g16, w6, w9, w10, w11, w14, w17, w28, w100, t1, t15, t16, t70, ts22, ts26, i1, i6, h1, d1, d2, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3210-1601-1 E	DPA-Dx pollen 1 (t3, g6, t215, t216, t220, t225, g205, g215, g210, g212, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3211-1601-1 E	DPA-Dx pollen "Southern Europe 1" (t3, t9, t23, g6, w21, m6, t215, t226, w211, g205, g215, g210, g212, t224, t231, t235, m229, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3410-1601 E DP 3410-6401 E DP 3410-1601 SE	food (f1, f75, f2, f45, f4, f5, f9, f13, f14, f17, f20, f49, f84, f237, f25, f31, f35, f85, f3, f23, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01 16 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3410-1601-1 E	food 2 (f1, f75, f2, f78, f4, f5, f14, f10, f13, f17, f20, f49, f84, f95, f25, f31, f35, f85, f3, f23, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3410-1601-3 E	food 3 (f13, f17, f20, f158, f12, f14, f89, f96, f25, f47, f48, f85, f49, f84, f92, f95, f26, f27, f83, f3, f23, f24, f40, f4, f8, f9, f10, f45, f2, f78, f218, f1, f75, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3411-1601 E	food "South East Asia 1" (f1, f75, f2, f4, f9, f10, f14, f13, f17, f63, f64, f83, fs10, fs14, f23, f24, f80, f234, f105, f336, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3414-1601-2 E	food "China 2" (f1, f2, f13, f14, f23, f24, fs33, fs34, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3415-1601 E	food "Middle East" (f1, f75, f2, f78, e204, f4, f14, f45, f13, f17, f20, f33, f49, f92, f25, f31, f85, f48, f88, f89, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3415-1601-2 E	food "Middle East 2" (f2, f169, f245, f233, f13, f17, f20, f144, f253, f256, f10, f361, f36, f9, f4, f292, fs82, fs83, fs43, f83, f12, f14, f132, f159, fx20, f33, f49, f92, f97, f237, fs48, f50, f72, f93, f96, f191, f329, f25, f35, f38, f47, f244, f262, fx15, fs77, fs78, f273, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3416-1601 E	food "Gulf" (f1, f75, f2, f105, f4, f14, f45, fs36, f13, f92, f33, f44, f93, f25, f31, f48, f83, f88, f3, f23, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3420-1601-11 E	food "Turkey 1" (f1, f75, f2, f169, f78, f4, f79, f9, f14, f10, f13, f17, f144, u87, f222, f73, f33, f44, f49, f92, f84, f146, f328, f25, f31, f35, f48, f95, f97, f122, f132, fs14, fs10, fs43, f83, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3421-1601 E	food "India" (f2, f75, f168, f4, f9, f14, f13, f36, f49, f50, f35, f38, f48, f244, f83, f89, f74, f240, f23, f24, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3421-1601-2 E	food "India 2" (f1, f75, f2, f168, f360, f4, f79, f7, f9, f14, f13, f33, f36, f49, f50, f12, f25, f35, f38, f47, f48, f159, f212, f244, f262, f370, f364, f367, f27, f83, f88, f89, f74, f105, f240, fs81, f3, f23, f24, f371, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3422-1601 E	food "France" (f20, f17, f25, f12, f13, f14, f85, f158, f49, f84, f95, f27, f83, f26, f23, f3, f10, f9, f4, f2, f75, f1, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3422-1601-2 E	food "France 2" (f20, f17, f25, f12, f13, f14, f85, f92, f96, f49, f84, f89, f27, f26, f24, f23, f40, f3, f45, f10, f4, f2, f75, f1, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3423-1601-3 E	food "Lebanon 3" (f23, f24, f40, f41, fs79, f45, f1, f2, f76, f77, f78, f334, e204, f4, f9, f10, f12, f13, f14, f20, fs39, f44, f49, f84, f95, fs80, f25, f31, f35, f47, f48, f86, f96, f159, f292, f273, fs78, f27, f83, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3424-1601 E	food "Screen South Africa" (f1, f2, f4, f13, f14, fs36, f3, fs12, fs58, fs53, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3425-1601 E	food "Mexico" (f1, f75, f2, f78, f95, f96, f44, fs32, f4, f7, f9, f45, f13, f14, f20, fs35, f12, f15, f49, f292, f25, f31, f35, f92, f216, f191, f263, f105, f284, f83, f26, f27, fs27, f24, f40, fs12, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3426-1601-1 E	food "Ukraine 1" (f1, f75, f2, f78, f4, f5, f14, f10, f13, f256, f17, f20, f49, f95, f25, f31, f35, f85, f3, f24, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3426-1601-2 E	food "Ukraine 2" (f4, f6, f9, f11, f13, f361, f45, f47, f73, f81, fs32, f25, f35, f26, f27, f83, f3, f40, f41, f206, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3427-1601 E	food dairy products and nuts (f1, f2, f75, f78, f13, f256, f17, f20, f73, f336, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3428-1601 E	food flour and meat (f4, f5, f7, f9, f26, f27, f83, f79, f3, f24, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3429-1601 E	food vegetables (f10, f14, f86, f25, f31, f35, f85, f46, f244, f292, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3430-1601 E	food fruits (f44, f49, f84, f92, f95, f97, f122, f237, f329, fs32, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3431-1601 E	food "Maghreb" (f1, f75, f2, f78, f4, f9, f10, f12, f13, f14, f17, f20, f33, f44, f49, f92, f25, f35, f47, f48, f85, f45, f73, f27, f83, f3, f40, f41, f23, f24, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3432-1601-1 E	food "Iran 1" (f1, f75, f2, f78, f4, f5, f9, fs13, f10, f13, f14, f17, f20, f144, f256, f79, f44, f49, f50, f84, f92, f93, f95, f97, f87, fs32, f25, f35, f46, f47, f85, f262, f83, fs28, f24, fs12, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3433-1601-1 E	food "Venezuela 1" (f1, f232, f233, f75, f2, f76, f77, f78, f105, f4, f5, f6, f7, f9, f14, f292, f79, f13, f17, f20, f256, f3, f24, f37, f40, f41, f308, f155, f45, f25, f31, f35, f32, f33, f44, f49, f72, f92, f26, f27, f83, f81, f205, f218, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3434-1601-1 E DP 3434-6401-1 E	food "California 1" (f1, f2, f4, f10, f13, f14, f256, f292, f3, f24, f324, f338, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01
DP 3436-1601-1 E	food "Iraq 1" (f1, f75, f2, f78, f4, f5, f9, fs13, f10, f13, f14, f17, f20, f144, f256, f79, f44, f49, f50, f84, f92, f93, f95, f97, f87, fs32, f25, f35, f46, f47, f85, f262, f83, fs28, f24, fs12, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3510-1601-1 E DP 3510-1601-1 SE	DPA-Dx milk 1 (f2, f76, f77, f78, f334, e204, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 16 x 01
DP 3511-1601-1 E	DPA-Dx peanuts 1 (t215, f422, f423, f424, f429, f445, f444, f427, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3701-1601 E	atopy "Top Screen" (rs1, rs2, fx5, fs52, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3702-1601-1 E	atopy "Chile 1" (d1, d2, e1, e2, es2, g2, g4, g5, m2, m3, m6, t11, t14, t15, t19, w9, w100, f1, f75, f78, f2, f40, f41, fs12, f4, f9, f13, f14, f25, f33, f49, f92, f83, f96, f105, f292, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3702-1601-2 E	atopy "Chile 2" (d1, d2, e1, e2, es2, gs2, m5, i6, t1, t7, t11, t14, t19, ts30, ws23, f1, f2, f4, f6, f7, f13, f17, f36, f256, f14, f74, f105, f292, f26, f27, f83, f88, f3, f40, f41, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3703-1601-1 E	atopy "Ukraine 1" (d1, d2, e1, e2, lgE, h1, is6, m6, g6, g12, ts3, t7, w1, w6, f1, f2, f14, f95, f23, fs59, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3703-1601-2 E	atopy "Ukraine 2" (d1, d2, e1, e2, e3, g6, t3, w6, m2, m3, f1, f75, f2, f3, f4, f13, f14, f31, f35, f49, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3704-1601-1 E	atopy "Venezuela 1" (f1, f75, f3, f24, f40, f308, f4, f5, f6, f7, f9, f14, f292, f79, f13, f17, f20, f2, f76, f77, f78, f105, f218, f25, f32, f33, f44, f49, f72, f26, f27, f83, f155, f45, u85, d1, d2, d201, e1, e2, e85, m1, m2, m3, m5, m6, g2, w8, i1, i3, i70, i71, i100, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3706-1601-1 E	atopy "Caribbean 1" (g6, g12, t3, t20, w6, e1, e2, e3, d1, m2, m6, f1, f2, f79, f4, f9,f14, f13, f31, f35, f292, f49, f362, f64, f3, f24, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3707-1601-1 E	atopy "Indonesia 1" (g2, g6, gs1, t19, t104, t223, d1, d2, d4, d72, d73, d201, e1,e2, e3, e204, es2, u134, i1, i6, m5, ms1, f4, f79, f13, f14, f17,f20, f45, f336, f1, f2,f76, f77, f78, fs10, f3, f40, f41, f23, f24,f80, f157, f63, f64, f83, f88, f81, f25, f47, f44, f84, f74, f105, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3708-1601-1 E DP 3708-6401-1 E	pediatrics "California 1" (f1, f2, f4, f13, f14, f256, f3, f24, e1, e2, e72, d1, d2, i6, m2, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01
DP 3709-1601-1 E	atopy "Thailand 1" (g2, g6, g10, e1, e2, e84, d1, d2, i6, i100, m2, m3, m6, u85, f1, f75, f2, f3, f23, f24, f41, f177, f234, f258, f232, f233, f76, f77, f78, f4, f79, f13, f423, f427, f14, f36, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3709-1601-2 E	atopy "Thailand 2" (d1, d2, e1, e2, e71, e82, e84, e85, e86, u81, u85, g2, g6, g10, t18, t19, i6, i100, m1, m2, m3, m6, f1, f75, f2, f4, f10, f13, f14, f20, f158, f31, f35, f45, f336, f23, f24, f234, f40, f41, f3, f436, f324, f37, f258, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3710-1601 E DP 3710-6401 E DP 3710-1601 SE	atopy (g6, g12, t3, w6, d1, e1, e2, e3, m2, m6, f1, f2, f3, f4, f9, f14, f17, f31, f35, f49, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01 16 x 01
DP 3710-1601-2 E	atopy 3 (g6, t3, t4, w6, d1, d2, e1, e2, e3, m2, m3, f1, f75, f2, f3, f4, f13, f14, f31, f49, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3710-1601-4 E	atopy 4 (f13, f17, f12, f14, f4, f85, f96, f26, f3, f24, f1, f2, f49, f84, f95, t3, t7, t9, t11, t15, t23, g6, w1, w6, w9, w21, e1, e5, m3, m6, d1, d2, i6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3711-1601 E	pollen-food cross reactions (g6, t3, w6, f4, f5, f13, f17, f20, f48, f89, f271, f275, f44, f49, f348, f237, f328, f31, f35, f85, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3712-1601 E DP 3712-6401 E DP 3712-1601 SE	pediatrics (gx, t3, w6, d1, d2, e1, e2, e3, m2, m3, m6, f1, f75, f2, f3, f76, f77, f78, e204, f4, f9, f14, f13, f17, f31, f35, f49, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01 16 x 01
DP 3713-1601 E DP 3713-6401 E	atopy "China" (ts20, w1, w6, ds1, h1, e1, e2, i6, ms1, u80, f1, f2, f13, f14, f27, f88, fs33, f24, f23, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 64 x 01
DP 3713-1601-5 E	atopy "China 5" (ds1, h1, i6, e1, e2, ms1, w1, w6, f1, f2, f13, f14, f23, f24, fs33, u80, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3713-1601-7 E	atopy "China 7" (ds1, h1, i6, e1, e2, ms1, w1, w6, f1, f2, fs33, u80, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01

EUROLINE for Allergy Diagnostics (Test Systems)

Order No.	Antibodies against	Ig Class	Substrate	Format
DP 3715-1601-1 E	atopy "South East Asia 1" (f1, f75, f3, f23, f2, f76, f77, f78, e204, f4, f5, f10, f13, f14, f17, f20, f256, f25, f31, f35, f85, f33, f49, e1, e2, e3, e6, e82, e84, m1, m2, m3, m6, d1, d2, g1, g2, g3, g4, g5, g6, g12, g13, g14, g16, w6, w9, t2, t3, t4, t7, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3715-1601-2 E	atopy "South East Asia 2" (d1, d2, d201, i6, e1, e2, es2, e11, f4, f10, f14, fs36, f36, f18, f256, f1, f2, f75, f83, f23, f24, f258, f37, f177, f324, m1, m2, m3, m6, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3715-1601-3 E	atopy "South East Asia 3" (ts20, w1, w6, ds1, h1, e1, e2, i6, ms1, u80, f1, f2, f13, f14, f27, f88, fs33, fs34, f24, f23, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3716-1601 E	atopy "Peru" (e1, e2, e3, e7, e11, e82, e84, es172, i1, i3, i6, m1, m2, m3, m6, t18, u85, w29, w28, d1, d2, f75, f79, f1, f2, f23, f206, f13, f14, f104, f105, f26, fs32, f44, f49, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3717-1601 E	"Mix France" (f85, f14, f13, f12, f4, f23, f3, f2, f1, f17, f84, f95, t3, t9, t7, t11, t23, g6, w9, w1, w6, w19, e1, e5, m3, m6, d1, d2, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3717-1601-2 E	"Mix France 2" (f85, f14, f13, f12, f4, f24, f3, f2, f1, f17, f49, f84, t3, t7, t9, t15, t23, g6, w9, w6, w21, w1, e1, e5, m3, m6, d1, d2, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3718-1601 E DP 3718-1601 SE	atopy "Lithuania" (w6, w9, w103, w203, t3, t4, t11, g6, gs21, e1, e2, e3, e4, e82, es2, ds1, ms1, m5, f73, f245, f2, f81, f13, f14, f17, f256, f4, f12, f15, f44, fs32, f26, f27, f83, f49, f3, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01 16 x 01
DP 3720-1601 E	insect venoms (i1, i3, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3790-1601 E	atopy screen (d1, d2, i1, i3, i6, h1, e1, e2, e3, m1, m2, m3, m6, g1, g3, g6, g12, t2, t3, t4, t7, t23, w1, w6, w9, u85, f25, f31, f35, f85, f1, f75, f2, f3, f23, f24, e204, f76, f77, f78, f27, f88, f45, f4, f5, f9, f14, f10, f13, f17, f20, f49, f84, f237, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3812-1601-1 E	DPA-Dx pediatrics 1 (t215, f76, f77, f78, f334, e204, f232, f233, f323, f356, f422, f423, f424, f427, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3850-1601-2 E	DPA-Dx insect venoms 2 (i1, i208, i213, i216, i3, i209, i211, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3850-1601-3 E	DPA-Dx insect venoms 3 (i1, i3, i75, i208, i213, i216, i209, i211, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01
DP 3851-1601-1 E	DPA-Dx insect venoms "Southern Europe 1" (i1, i3, i75, i77, i208, i213, i216, i210, i209, i220, i211, CCD)	IgE	membrane strip with allergens (EUROLINE)	16 x 01

Allercoat™ 6 Systems: Basic Reagents and Accessories

Order No.	Previous Order No.	Reagent	Format
ZP 3000-0100	22000	**conjugate pack**	for 100 analyses
ZP 3001-0060	22001	**reference set**	for 5 reference curves in double determination
ZP 3002-0511	22002	**washing solution (concentrate)**	for 5 x 500 ml
ZP 3003-0511	22003	**substrate buffer (incl. 5 substrate tablets)**	5 x 13.5 ml, ready for use
ZP 3004-0511	22004	**stop solution**	5 x 11 ml, ready for use
ZP 3008-0125	22008	**positive control serum (G5)**	2.5 ml, ready for use
ZP 3009-0125	22009	**negative control serum (G5)**	2.5 ml, ready for use
ZP 3020-48001		**microplate (only in combination with further reagents)**	5 microplates with 96 wells each

***) To view all Allercoat™ 6 products** scan the QR code or enter the Quick Link code q148 at www.euroimmun.com

Antigen detection

Stress diagnostics

Cortisol, sIgA, alpha amylase

For more information on this subject scan the QR code or enter the Quick Link code q041 at www.euroimmun.com

Cortisol, sIgA, alpha-amylase

Clinical information: Identifying straining stress is an important basis for treating and preventing many diseases. The quantification of biological stress markers presents a safe and efficient possibility to evaluate the effects of stressors, independently of their underlying cause.

Cortisol is the most important stress hormone besides catecholamines. The synthesis and release of cortisol from the adrenal cortex takes place in a circadian rhythm. In psychical and physical stress situations, it is increasingly released. In Cushing's syndrome (hypercortisolism) the cortisol level is always increased, whereas in Addison's disease, it is low. Also permanent stress may lead to a chronic lack in cortisol, e.g. to burn-out or chronic fatigue syndrome. While the largest share of cortisol is present in a bound form in serum, only free hormone is released into the saliva. Consequently, the sample material saliva is excellently suitable to determine the biologically active hormone.

While cortisol in saliva is considered the indicator of activity of the hypothalamic-pituitary-adrenal axis (HHNA), the secretion of alpha-amylase into the saliva (secretory alpha-amylase, sAA), is strongly associated with the activity of the vegetative nervous system. The concentration of alpha-amylase in saliva correlates with psychosocial stress, but not with other stress markers such as cortisol and noradrenaline.

Secretory IgA (sIgA) is the antibody of the mucous membranes, whose primary function is the defence of pathogenic agents and thus the prevention of infections. The sIgA titer is an indicator which is often used to determine the mucosal immune status, but is also indirectly associated with stress. The stress-induced decline of sIgA concentration is independent of the subjective perception of stress. The subjective perception of stress is also not limited to the time in which a stress factor acts, but also goes beyond it. Consequently, the sIgA concentration can be used as an indicator for longer periods of stress.

Diagnostics: sAA detection provides a concentration measurement in the saliva, which is dependent on mental strain, in particular the stress load of the patient. The effectiveness of psychotherapeutic stress therapy and drug treatment of autonomic stress responses can be monitored by investigation of the sAA titer.

The measured sIgA concentration is an indicator of e.g. stress caused by oral pain, mental/physical stress, susceptibility to infection, impaired immunological barrier of the intestinal mucosa (e.g. in coeliac disease), autoimmune diseases (e.g. Sjögren's syndrome) or pharmacological intervention.

Besides concentration measurements of sAA and sIgA, the determination of free cortisol rounds off the portfolio for indirect measurement of the individual physiopathological effects of stress (stress reactivity).

Product details

Analyte	Sample material	Application	Order number	Page
Cortisol	Saliva	Fully automatable test systems for in vitro determination of biomarkers in human saliva in the diagnosis of diseases associated with physical or emotional stress	EQ 6141-9601 S	252
sIgA	Saliva		EQ 6211-9601 S	252
Alpha-amylase	Saliva		EQ 6231-9601 S	252

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q098 at www.euroimmun.com

Bone metabolism

25-OH vitamin D, intact PTH, calcitonin

For more information on this subject scan the QR code or enter the Quick Link code q029 at www.euroimmun.com

25-OH vitamin D, parathyroid hormone, calcitonin

Clinical information: The bone metabolism is significantly influenced by the activity of osteoblasts and osteoclasts, the calciotropic hormones 1,25-dihydroxy vitamin D, parathyroid hormone, calcitonin, and the extracellular calcium concentration.

Vitamin D exists in the body in two forms: vitamin D_2 originates from plant food and vitamin D_3 is produced in the skin under ultra-violet light or is taken up in animal food. These two forms are present bound in the bloodstream and are hydroxylated in the liver to 25-hydroxy vitamin D (25-OH vitamin D). It is only with another hydroxylation step in the kidneys that the biologically active metabolite 1,25-dihydroxy vitamin D is produced. Since 25-OH vitamin D represents the largest share of vitamin D metabolites in the blood, its concentration is the best indicator of the vitamin D status. Vitamin D deficiency leads to a decrease in bone mineralisation due to limited uptake of calcium and phosphate.

Parathyroid hormone (PTH) is a peptide hormone which is synthesised in the parathyroid glands. The main function of PTH is to increase the concentration of calcium in the blood plasma. Intact PTH (iPTH) is the biologically active form and is secreted when the calcium level is low.

Calcitonin is the antagonist of parathyroid hormone and is also produced in the parathyroid glands. The production and secretion of calcitonin is stimulated by an elevated calcium level and results in a reduction of the calcium concentration in the blood. Calcitonin inhibits osteoclast activity.

Diagnostics: The **25-OH Vitamin D ELISA** provides serological determination of the vitamin D concentration in the human organism. Serum levels of 25-OH vitamin D are the most suitable indicator of the vitamin D supply in humans.

The **quantification of iPTH** is an important component for the diagnosis of primary hyperparathyroidism. It also supports the clarification of secondary and tertiary hyperparathyroidism.

Calcitonin serodiagnostics are generally employed for clarification of scintigraphically cold thyroid nodules. The serum calcitonin level is strongly increased in medullary thyroid carcinoma (C-cell carcinoma). Hyperparathyroidism is present in 20 to 30 % of patients with C-cell carcinoma.

Moreover, the determination of 25-OH vitamin D, iPTH and calcitonin levels altogether may provide information on whether or not bone metabolism disorders or diseases are present.

Product overview

Analyte	Sample material	Application	Order number	Page
25-OH vitamin D_3 and D_2	Serum/plasma	ELISA with an analytical specificity of 100% for 25-OH vitamin D_2 and D_3	EQ 6411-9601	252
Intact parathyroid hormone (iPTH)	Serum/plasma	Specific determination of iPTH through combination of N- and C-terminal-specific antibodies	EQ 6421-9601	252
Calcitonin	Serum/plasma	Sandwich ELISA for quantitative determination of human calcitonin in serum	EQ 6431-9601	252

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q076 at www.euroimmun.com

Neurodegenerative diseases

Beta-amyloid, total tau

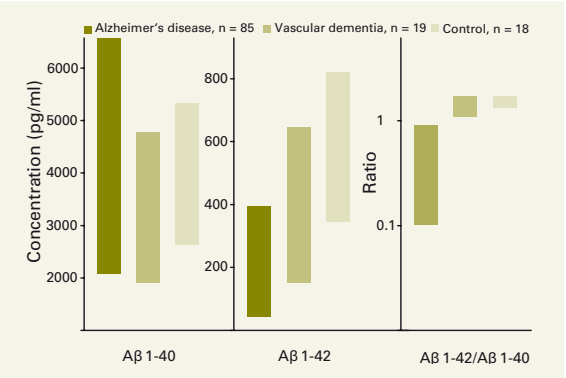
For more information on this subject scan the QR code or enter the Quick Link code q032 at www.euroimmun.com

Beta-amyloid, tau proteins

Clinical information: Alzheimer's disease, which was first described in 1906, is with 60 to 70% the most common cause of dementia in old age. The prevalence doubles for around every five years of age – 30% of persons over 90 suffer from this disease. In contrast to the age-dependent, sporadic form of Alzheimer's, the familial, genetically caused form can also occur in young adults from 30 years of age. The disease is divided into three consecutive phases: the preclinical stage, the MCI (mild cognitive impairment) stage and the dementia stage. In Alzheimer's disease neurofibrillary tangles accumulate in the nerve cells (in particular in the cortical and limbic brain regions). Outside of the nerve cells, deposits of beta-amyloid (Aβ) in the form of so-called **neuritic plaques** are observed. These contain predominantly the peptides beta-amyloid 1-40 (Aβ1-40) and beta-amyloid 1-42 (Aβ1-42). The intracellular **neurofibrillary tangles** consist of hyperphosphorylated tau proteins.

Diagnostics: Definitive diagnosis of Alzheimer's disease can only be established by brain autopsy to detect the neuropathological changes (plaques and neurofibrillary tangles). In vivo diagnosis (probable Alzheimer's disease) is based primarily on clinical identification of dementia syndrome and exclusion of possible reversible causes (e.g. endocrinopathies, vitamin deficiency diseases, chronic infections, etc.).

Clinical diagnosis is unreliable, particularly in the early disease stages, and requires additional measurable biomarkers with high diagnostic reliability. The concentrations of soluble Aβ1-42 and phosphorylated tau protein (pTau(181)) in the **cerebrospinal fluid (CSF)** reflect the Alzheimer's-specific neuropathological changes in the brain. The CSF of persons who will later develop Alzheimer's disease exhibits a significant **decrease in the Aβ1-42 concentration** already 5 to 10 years before the start of cognitive changes. In contrast, the **concentrations of total tau and pTau(181)** in the CSF **increase** when patients show advanced neurodegeneration and cognitive impairment. Thus, discrimination from healthy persons is possible. The **ratio Aβ1-42 / Aβ1-40** in CSF can, in addition, contribute to the differentiation of Alzheimer's disease from vascular dementia (see figure).



Imaging techniques such as MRT, SPECT, or PET (amyloid detection) can also be used to support early and differential diagnostics. Results from CSF-based neurochemical analyses and results from imaging procedures should only be assessed in the context of all available diagnostic information.

Product overview

Method	Analyte	Sample material	Application	Order number	Page
ELISA	Beta-amyloid (1-38)	CSF	Additional diagnostic test in suspected cases of clinical amyloid pathologies of the brain	EQ 6501-9601-L	252
	Beta-amyloid (1-40)	CSF		EQ 6511-9601-L	252
	Beta-amyloid (1-42)	CSF		EQ 6521-9601-L	252
	Total tau	CSF	Detection of nerve cell death	EQ 6531-9601-L	252
	Phospho tau	CSF	Specific detection of threonine 181 phosphorylated tau protein (pTau(181))	EQ 6591-9601-L	253
	BACE-1*	CSF	Determination of BACE-1 protein concentration	EQ 6541-9601-L	252
	Neurogranin*	CSF	Detection of truncated neurogranin P75	EQ 6551-9601-L	252
	Neurofilament (pNF-H)	Plasma and CSF	Quantitative detection of phosphorylated neurofilament H (pNF-H)	EQ 6561-9601	252
	Neurofilament (pNF-H) sensitive	Serum		EQ 6562-9601	253
	Alpha-synuclein	CSF	Detection of alpha-synuclein in CSF	EQ 6545-9601-L	253
ChLIA	Beta-amyloid (1-40)	CSF	Additional diagnostic test in suspected cases of clinical amyloid pathologies of the brain	LQ 6511-10100-L (control set: LR 6511-20210-L)	254
	Beta-amyloid (1-42)	CSF		LQ 6521-10100-L (control set: LR 6521-20210-L)	254

*) Currently not available as IVD in the European Union.

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q083 at www.euroimmun.com

Kidney activity

Uromodulin

For more information on this subject scan the QR code or enter the Quick Link code q125 at www.euroimmun.com

Uromodulin

Clinical significance: In the human body, uromodulin is exclusively produced in the kidneys by the tubule cells of the thick ascending limb of Henle's loop and secreted both into the lumen of the tubule and the blood stream. In the distal tubule lumen, uromodulin is present polymerised to the epithelium, offering protection against kidney stone formation. Due to its polymer structure, the uromodulin which is secreted via the urine is only to a small extent suitable for measurement. Uromodulin in serum, on the other hand, is exclusively present as a monomer and therefore can be more reliably quantified.

Moreover, uromodulin concentrations in urine only have a weak association with the estimated glomerular filtration rate (eGFR). In contrast, the uromodulin in serum (sUmod) correlates strongly with the eGFR.

The sUmod concentration allows identification of early stages of chronic kidney insufficiency already in the symptom-free phase as opposed to established glomerular markers, such as creatinine and cystatin C. A decrease of sUmod concentration in progressing kidney insufficiency shows a loss in function and integrity of the kidney parenchyma.

Based on the sUmod level, also long-term complications can be deduced. Epidemiological studies show that low sUmod concentrations are associated with an increased overall mortality, cardiovascular morbidity, heart insufficiency and the progression of kidney insufficiency. With respect to transplantations, low sUmod concentrations are predicative for long-term function loss of the transplant.

Diagnostics: Serum uromodulin presents a sensitive marker of tubular function with a large potential for the prediction and early recognition of descreasing kidney function. This applies especially to diseases in which mainly the kidney tubules are damaged.

Product details

Analyte	Sample material	Application	Order number	Page
Uromodulin	Serum/plasma	Sensitive marker for a loss in kidney function	EQ 6821-9601	253

Inflammatory bowel diseases

Calprotectin

For more information on this subject scan the QR code or enter the Quick Link code q127 at www.euroimmun.com

Calprotectin

Clinical significance: Calprotectin is a calcium- and zinc-binding protein which is produced by neutrophil granulocytes and monocytes and has bactericidal and fungicidal properties. In the case of an inflammatory intestinal disease, granulocytes move into the gut lumen where they release calprotectin, which is secreted with stool. The calprotectin concentration in stool shows the extent of an inflammation in the intestine.

Diagnostics: The non-invasive determination of calprotectin levels in stool is useful for:

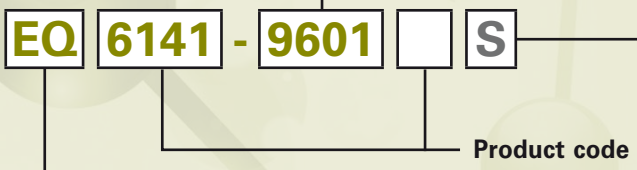
Differential diagnostic delimitation of an irritable colon (irritable bowel syndrome) from acute and chronic inflammations of the intestine (e.g. viral or bacterial infections, Crohn's disease, ulcerative colitis). The calprotectin level in stool is increased in chronic inflammatory bowel diseases (CIBD) and malignant intestinal tumors with an inflammatory component, but not in intestinal polyps, benign intestinal tumors, and irritable colon.

Monitoring the disease course and therapy response in patients with CIBD. With successful treatment, the originally increased calprotectin level decreases significantly. In the case of a relapse, it increases again. The level correlates very well with the histological and endoscopical findings. Owing to the non-invasive calprotectin determination, patients can be spared biopsies and other complicated procedures.

Product details

Method	Analyte	Sample material	Application	Order number	Page
ELISA	Calprotectin	Stool	Ideally suited for differentiation of chronic inflammatory bowel disease and irritable bowel syndrome and for monitoring the disease course	EQ 6831-9601 W	253
ChLIA	Calprotectin	Stool		LQ 6831-10010 W (control set: LR 6831-20210 W)	254

Products for antigen detection



Format
9601: 96 individual break-apart wells (12 microplate strips, 8 wells each)

Product code

Sample material
- L: CSF
- S: Saliva
- U: Urine
- W: Stool

Product classification
- EQ: Test system microplate ELISA (hormones and proteins) ..... page 252
- LQ: Test system chemiluminescence test (hormones and proteins) ..... page 254
- LR: Kontroll-Set chemiluminescence test ..... page 254

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the investigation.

Microplate ELISA for the Determination of Hormones and Proteins (Test Systems)

Order No.	Analyte	Calibration	Format
EQ 1016-9601-9	**reverse triiodothyronine (RT3)**	0/0.02/0.1/0.4/1/2 ng/ml	96 x 01
EQ 266a-9601-1	**Dengue virus NS1 (DENV)**	1/10/100 RU/ml	96 x 01
EQ 6141-9601 S	**cortisol determination in saliva**	0/0.3/1/3/10/30 ng/ml	96 x 01
EQ 6151-9601	**free testosterone**	0/0.1/1/5/20/60 pg/ml	96 x 01
EQ 6151-9601 S	**testosterone determination in saliva**	0-250 pg/ml	96 x 01
EQ 6151-9601-1	**total testosterone**	0/0.08/0.42/1.67/5/16.7 ng/ml	96 x 01
EQ 6153-9601	**androstenedione**	0/0.1/0.3/1/3/10 ng/ml	96 x 01
EQ 6154-9601	**dehydroepiandrosterone (DHEA)**	0/0.2/1/5/15/40 ng/ml	96 x 01
EQ 6155-9601	**dehydroepiandrosterone sulfate (DHEAS)**	0/0.2/1/5/15/40 ng/ml	96 x 01
EQ 6162-9601	**progesterone**	0/0.3/1/5/20/60 ng/ml	96 x 01
EQ 6163-9601	**17-OH-progesterone**	0/0.15/0.5/1.5/3/7.5/20 ng/ml	96 x 01
EQ 6179-9601	**sex hormone-binding globulin (SHBG)**	0/3.3/12.5/55/160/295 nmol/l	96 x 01
EQ 6211-9601 S	**sIgA determination in saliva**	0-1200 µg/ml	96 x 01
EQ 6231-9601 S	**alpha-amylase determination in saliva**	0-500 U/ml	96 x 01
EQ 6411-9601	**25-OH vitamin D**	0/4/10/25/60/120 ng/ml	96 x 01
EQ 6421-9601	**intact PTH**	0/8/20/80/200/500 pg/ml	96 x 01
EQ 6431-9601	**calcitonin**	0/10/30/90/270/540 pg/ml	96 x 01
EQ 6444-9601	**leptin**	0/1/5/10/20/50/100 ng/ml	96 x 01
EQ 6446-9601	**adiponectin**	0/2/5/10/25/50 ng/ml	96 x 01
EQ 6501-9601 *	**beta-amyloid (1-38) determination in plasma**	0-50 pg/ml	96 x 01
EQ 6501-9601-L	**beta-amyloid (1-38) determination in CSF**	0/125/250/500/1000/3000 pg/ml	96 x 01
EQ 6511-9601 *	**beta-amyloid (1-40) determination in plasma**	0-75 pg/ml	96 x 01
EQ 6511-9601-L	**beta-amyloid (1-40) determination in CSF**	0/50/100/200/400/600 pg/ml	96 x 01
EQ 6521-9601 *	**beta-amyloid (1-42) determination in plasma**	0-40 pg/ml	96 x 01
EQ 6521-9601-L	**beta-amyloid (1-42) determination in CSF**	0/50/100/200/400/600 pg/ml	96 x 01
EQ 6531-9601-L	**total tau determination in CSF**	0/125/250/500/1000/1500 pg/ml	96 x 01
EQ 6532-9601 *	**plasma tau**	quantitative	96 x 01

*) Currently not available as IVD in the European Union.

Microplate ELISA for the Determination of Hormones and Proteins (Test Systems)

Order No.	Analyte	Calibration	Format
EQ 6541-9601-L *	**BACE-1 determination in CSF**	0/250/1000/2000/4000/12000 pg/ml	96 x 01
EQ 6545-9601-L *	**alpha-synuclein determination in CSF**	0/100/500/1000/2000/4000/6000 pg/ml	96 x 01
EQ 6551-9601-L *	**neurogranin determination in CSF**	0/50/100/200/400/800/1300 pg/ml	96 x 01
EQ 6561-9601	**neurofilament (pNf-H) determination in CSF and plasma**	0-10 ng/ml	96 x 01
EQ 6562-9601	**neurofilament (pNf-H) high sensitive ELISA determination in serum**	0-10 ng/ml	96 x 01
EQ 6563-9601-L *	**neurofilament (Nf-L) determination in CSF**	0.1-5 ng/ml	96 x 01
EQ 6591-9601-L	**pTau(181) determination in CSF**	0-200 pg/ml	96 x 01
EQ 6811-9601-L	**CXCL13 determination in CSF**	0/10/30/90/200/500 pg/ml	96 x 01
EQ 6821-9601	**uromodulin determination in serum**	0/25/50/100/200/400 ng/ml	96 x 01
EQ 6831-9601 W	**calprotectin determination in stool**	0/15/60/240/960/2100 µg/g	96 x 01
EQ 6851-9601-U *	**sCD163 determination in urine**	0/0,32/0,8/2/5/12,5 ng/ml	96 x 01
EQ 6911-9601	**Aspergillus antigen**	semi-quantitative	96 x 01

*) Currently not available as IVD in the European Union.

Chemiluminescence Tests for the Determination of Hormones and Proteins

Order No.	Analyte	Calibration	Format
LQ 6511-10010-L	**beta-amyloid (1-40) determination in CSF**	80-20000 pg/ml	100 determinations for RA Analyzer 10
LQ 6521-10010-L	**beta-amyloid (1-42) determination in CSF**	80-2000 pg/ml	100 determinations for RA Analyzer 10
LQ 6831-10010 W	**calprotectin determination in stool**	quantitative	100 determinations for RA Analyzer 10

Control Sets for Chemiluminescence Tests

Order No.	Control Set (Ready for use)	Format
LR 6511-20210-L	**control set beta-amyloid (1-40) determination in CSF**	2 x 0.5 ml control 1/2
LR 6521-20210-L	**control set beta-amyloid (1-42) determination in CSF**	2 x 0.5 ml control 1/2
LR 6831-20210 W	**control set calprotectin determination in stool**	2 x 0.5 ml control 1/2

Molecular genetic diagnostics

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q142 at www.euroimmun.com

ApoE

Clinical information: The molecular genetic determination of the APOE alleles ε2, ε3 and ε4 is used in particular for the differential diagnosis and/or early identification of Alzheimer's disease (AD) and type III hyperlipoproteinaemia. Arteriosclerosis and other vessel diseases (coronary heart disease, stroke) are also associated with particular APOE alleles. Apolipoprotein E (ApoE) is a component of lipoproteins in blood and plays an important role in fat metabolism, but also in blood coagulation, the immune response, and the protection from oxidative processes. ApoE binds to the amyloid β peptide, which plays a central role in neurodegeneration in Alzheimer's patients. There are three different APOE alleles: ε2, ε3 and ε4. From these alleles, three different isoforms of the ApoE protein (E2, E3 and E4) are produced, which differ in the amino acids at positions 112 and 158. E2: cysteine - cysteine; E3: cysteine - arginine; E4: arginine - arginine.

The APOE allele ε4 occurs in Alzheimer's patients around three times more frequently than in the normal population (36.7% versus 13.7%). In contrast, the APOE allele ε2 is rarer in Alzheimer's patients than in the normal population (3.9% versus 8.4%). Correspondingly, carriers of an APOE ε4 allele have an increased risk of developing Alzheimer's disease, while the APOE allele ε2 is associated with a reduced risk. In families with the late form of Alzheimer's disease, the disease risk and the average age of disease onset is strongly dependent on the ε4 gene dosage: 20% and 84 years for non ε4 carriers, 47% and 76 years for heterozygote and 91% and 68 years for homozygote carriers of the ε4 allele.

Alongside its significance for differential diagnosis, the determination of APOE alleles has an increasing pharmacological significance in the development of new medication against Alzheimer's disease.

The APOE allele ε4 has also been associated with a slightly increased risk of arteriosclerosis and related vessel diseases such as ischaemic stroke and coronary heart disease.

Homozygosity for the APOE allele ε2 has been identified as the primary molecular cause of type III hyperlipidaemia (familial dysbetalipoproteinaemia), which leads to a greatly increased risk of arteriosclerosis.

Diagnostics: The EUROArray APOE Direct was especially developed for specific determination of the APOE gene variants ε2, ε3 and ε4 and enables fast and simple analysis of the APOE alleles in a single test. In-depth molecular biological knowledge is not required. In the unique direct procedure, full blood samples can be used directly without the need for DNA isolation, which saves time and costs. Data analysis, data interpretation and electronic archiving are done completely automated by means of the EUROArrayScan software. In the results it is exactly distinguished between homozygous and heterozygous presence of the different possible genotypes (ε2/ε2, ε2/ε3, ε2/ε4, ε3/ε3, ε3/ε4, ε4/ε4). Within the framework of Alzheimer's diagnosis, the EUROArray APOE Direct represents a good supplement to the EUROIMMUN test systems based on antibody detection.

Product overview

Parameter	Sample material	Application	Order number	Page
APOE Direct	Whole blood/ genomic DNA	Molecular biological in vitro determination of disease-associated APOE alleles in human genomic DNA for diagnosis of Alzheimer's disease, type III hyperlipoproteinaemia and other diseases associated with alleles ε2, ε3 and/or ε4 of the APOE gene.	MN 5710-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code g080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q135 at www.euroimmun.com

Factor V / Factor II / MTHFR

Clinical information: Deep and superficial venous thrombosis and thromboembolism of the brain, lung and coronary vessels are among the most frequent causes of death in western industrialised countries. These conditions result from a combination of genetic and exogenous factors. More than half of all thromboembolic cases are caused by genetic risk factors, particularly if the disease occurs before the age of 45 without any noticeable external factors or at an atypical location. The most important and most frequent genetic risk factors for thrombosis/embolism are the factor V Leiden (1691G>A) mutation and the factor II 20210G>A mutation. Furthermore, two polymorphisms in the methylene tetrahydrofolate reductase (MTHFR) gene are associated with an increase in the homocystein level (hyperhomocysteinaemia), which is also a risk factor for thrombosis.

The mutated factor V can be only insufficiently inactivated by activated protein C (APC). This so-called APC resistance results in an increased thrombosis tendency. The factor II (prothrombin) 20210G>A mutation is associated with both venous and arterial thrombosis. Due to the increased prothrombin plasma concentration, the heterozygous form alone causes an approximately 3 times higher risk of deep venous thrombosis. Variants 677T and 1298C of the MTHFR gene result in a reduced enzyme activity. This can develop into hyperhomocysteinaemia, which is a risk factor e.g. for thrombosis. The cumulative risk (factor V Leiden plus factor II 20210G>A mutation) of venous thrombosis is 20 times higher. These two mutations often occur together in thrombophilia patients, which confirms their additive genetic effect. If these genetic risk factors are accompanied by other genetic predisposing gene variants such as mutations in the MTHFR gene, the total risk of thromboembolism, in particular cardiac infarction, is increased further.

Diagnostics: The **EUROArray FV / FII+ / MTHFR Direct** has been optimised to provide secure determination of the most important genetic thrombosis risk factors. It is extremely easy to perform. With the unique direct procedure, the DNA no longer needs to be isolated. The blood sample is treated with two extraction reagents and can then be used directly in the PCR. The PCR primers and microarray probes have been carefully selected so that the aforementioned mutations in the factor V (1691G>A) and/or factor II genes (20210G>A) are clearly identified. Data analysis, data interpretation and electronic archiving are fully automated using the **EUROArrayScan software**. When a positive result is obtained, the system differentiates between homozygous and heterozygous mutations. The EUROArray FV / FII+ / MTHFR Direct ensures the highest possible reliability of results, in particular for rare genotypes. The test system includes unique controls that indicate whether the analysed DNA contains further known mutations in direct vicinity of the investigated sequence variants that may affect the binding to the probes and, consequently, the test result. Different EUROArray test systems are available for the determination of the FV Leiden and FII 20210G>A mutations and the polymorphisms 677C>T and 1298A>C in the MTHFR gene. Thus, the determinations can be performed separately or together in one test run, depending on the analysis request.

Product overview

Parameter	Sample material	Application	Order number	Page
FV/FII+/MTHFR Direct	Whole blood/ genomic DNA	Molecular biological in vitro determination of point mutations or single-nucleotide polymorphisms in the factor V gene (factor V Leiden, 1691G>A), factor II (prothrombin) gene (20210G>A) and/or MTHFR gene (677C>T and 1298A>C) in human genomic DNA to assess the genetic thrombosis risk	MN 5820-####-V	284
FV/FII+ Direct	Whole blood/ genomic DNA		MN 5821-####-V	285
FV Leiden Direct	Whole blood/ genomic DNA		MN 5822-####-V	285
FII+ Direct	Whole blood/ genomic DNA		MN 5823-####-V	285
MTHFR Direct	Whole blood/ genomic DNA		MN 5824-####-V	285

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q130 at www.euroimmun.com

HLA-B27

Clinical information: Human leukocyte antigens (HLA) are tissue antigens of the human major histocompatibility complex (MHC). HLA-B belongs to the HLA antigens of class I (also called MHC I antigens) which are present on all nucleus-containing cells of the body. Their function is the control of the T-cell-mediated immune response. Due to an extreme genetic polymorphism there are a large number of HLA phenotypes. For HLA-B over 1000 different alleles have been described. The HLA-B*27 allele alone has 130 subtypes (B*27:01 to B*27:105), which differ only in a few bases. The membrane-bound HLA-B27 protein is associated with the occurrence of several autoimmune diseases, such as ankylosing spondylitis (Bechterew's disease). Around 3 to 6 % of HLA-B*27 carriers develop ankylosing spondylitis. Around 90 % of ankylosing spondylitis patients are carriers of this tissue antigen, in particular subtypes B*27:02, B*27:04 and B*27:05. The subtypes B*27:06 and B*27:09 on the other hand are not associated with ankylosing spondylitis. Therefore, subtype differentiation is necessary for confirmation of diagnosis in particular populations.

Diagnostics: HLA-B27 can be determined accurately and precisely with molecular biological methods via the detection of the corresponding allele (HLA-B*27) in the genomic DNA of the patient. The method competes with the lymphocytotoxicity tests used up until now. In contrast to these methods, live cells are not required for the EUROArray test. The shipment and storage of samples are considerably simplified. Blood samples can be collected and processed together, for example, once a week. Because of cross-reactions with antibodies (with e. g. HLA-B7) and potential false-negative results in immunophenotyping when HLA-B*27 expression is low, molecular genetic determination of HLA-B*27 is more specific and sensitive than serological methods. The PCR method using allele-specific primers has the potential to provide reliable results, particularly for the various HLA-B*-27 subtypes.

The HLA-B*27 primers for this test system have been chosen and optimised so that all currently known HLA-B*27 subtypes are detected. Furthermore, when a positive result is obtained, it is indicated whether subtypes HLA-B*27:06 or HLA-B*27:09 could be involved. These two subtypes are not associated with ankylosing spondylitis. With the unique direct procedure, the DNA no longer needs to be isolated. The blood sample is treated with two extraction reagents and can then be used directly in the PCR. Data analysis, data interpretation and electronic archiving are fully automated using the **EUROArrayScan software**. Numerous controls on the **EUROArray HLA-B27** verify the correctness of the results. For every reaction it is verified that human DNA was present in the PCR and that the primers for the amplification were functional, which is particularly relevant when negative HLA-B27 results are obtained. All of these controls ensure a reliable test result with just one PCR reaction.

Product overview

Parameter	Sample material	Application	Order number	Page
HLA-B27 Direct	Whole blood/ genomic DNA	Molecular biological in vitro determination of disease-associated HLA-B*27 alleles in human genomic DNA in the diagnosis of rheumatic diseases, in particular ankylosing spondylitis (Bechterew's disease)	MN 5110-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q131 at www.euroimmun.com

HLA-B57:01

Clinical significance: Genetic testing for HLA-B*57:01 is useful for preventing hypersensitivity reactions against the HIV chemo-pharmaceutic agent abacavir. All HIV-infected patients should be tested for the presence of the HLA-B*57:01 allele before starting treatment with drugs containing abacavir sulphate.

Symptoms of a hypersensitivity reaction are fever, exanthema, pruritus, occasionally gastrointestinal and respiratory problems, joint pain and increased liver/kidney parameters with a progressive course up to death, especially with re-exposure. Depending on the ethnic group, a significant part of the treated patients are affected. Reactions have proven to occur in 8 to 16% of black South Africans, 20 to 22% of Hispanics and 48 to 61% of Caucasians. Around 8% of people carry the HLA-B*57:01 allele. The prevalence ranges between 0.1% (Japanese) and 19.6%, (e.g. South Africans).

Diagnostics: The EUROArray HLA-B57:01 Direct enables a molecular biological HLA-B*57:01 determination which is quick and easy to perform – no in-depth knowledge of molecular biology is required. The primers and probes employed in this test system were selected and optimised such that all HLA-B*57:01 alleles known worldwide can be detected in a single reaction. The direct method enables the direct use of whole blood samples. Therefore, a time- and cost-consuming DNA isolation is no longer required. The evaluation, generation and archiving of results are carried out fully automatically with the EUROArrayScan software.

Product overview

Parameter	Sample material	Application	Order number	Page
HLA-B57:01 Direct	Whole blood/ genomic DNA	Molecular genetic in vitro determination of HLA-B*57:01 alleles in human genomic DNA, associated with hypersensitivity reactions during treatment with abacavir.	MN 5210-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q132 at www.euroimmun.com

HLA-Cw6

Clinical information: Human leukocyte antigens (HLA) are tissue antigens (membrane-associated glycoproteins) of the human major histocompatibility complex (MHC), which is localised on the short arm of chromosome 6. HLA-C belongs to the HLA antigens of class I (also called MHC I antigens), along with HLA-A and HLA-B. These are the classic HLA antigens, which are represented on all nucleus-containing cells of the body. Their function is the control of the T-cell-mediated immune response. The determination of the HLA specificities or the HLA alleles is of particular importance due to the existence of HLA-associated diseases.

HLA-C*06 alleles are the genetic component for the predisposition to the autoimmune reactions that result in psoriasis. There is a strong genetic component to psoriasis; around 40 % of cases are familial. Monozygotic twins show a concordance rate of 62 to 70 % and dizygotic twins of 21 to 23 %. Recent total-genome association studies have confirmed that of all gene sites HLA-C shows the highest association with psoriasis, and HLA-C*06 can be considered as by far the most powerful genetic marker for the disease. Around 67 % of psoriasis patients carry the HLA-C*06 allele compared to a prevalence of around 10 to 20 % for the HLA-Cw6 antigen in the general population. Caucasians with the HLA-C*06 allele have a 10-fold increased risk of developing psoriasis.

Diagnostics: The **EUROArray HLA-Cw6** has been specifically designed for the determination of HLA-C*06 alleles. It is therefore particularly easy to perform compared to other molecular biological methods for the detection of HLA-C*06. Molecular biological methods compete with antibody-based microcytotoxicity tests and flow-through cytometrical procedures, which detect the HLA antigen on the cell surface. Because of the cross-reactions that occur with antibodies and potential false-negative results in immunophenotyping when HLA-Cw6 expression is low, molecular genetic determination of HLA-C*06 is more specific and sensitive than serological methods, as long as a well designed and validated test is used.

In chronic inflammatory skin diseases the determination of HLA-C*06 is of great significance for differential diagnostics, since the presence of the HLA-Cw6 antigen is associated in particular with type 1 psoriasis vulgaris (OR 16.0) and psoriasis guttata (OR 33.6), but is only comparatively weakly associated (OR 2.6) with type 2 psoriasis vulgaris. In type 1 psoriasis vulgaris around 83 % of patients carry the HLA-C*06 allele, whereas in type 2 the proportion of HLA-Cw6-positive patients is only 44 %. Type 1 psoriasis vulgaris has a more severe course than type 2 psoriasis vulgaris. In this test system (EUROArray HLA-Cw6) the PCR primers have been chosen and optimised so that all relevant HLA-C*06 subtypes are detected. Data analysis, data interpretation and electronic archiving are fully automated using the **EUROArrayScan software**. For every reaction the presence of isolated human genomic DNA is verified. Moreover, the functionality of the primers for HLA-Cw6 is verified, providing additional security with negative results.

Product overview

Parameter	Sample material	Application	Order number	Page
HLA-Cw6	Genomic DNA	Molecular genetic in vitro determination of disease-associated HLA-C*06 alleles in human genomic DNA in the diagnosis of psoriasis with skin manifestation (in particular type 1 psoriasis vulgaris, psoriasis guttata, type 2 psoriasis vulgaris), joint manifestation (in particular psoriatic arthritis) etc.	MN 5410-####	<?>

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q133 at www.euroimmun.com

HLA-DQ2/DQ8

Clinical information: The determination of HLA-DQ2/DQ8 is important to diagnostically exclude coeliac disease, an autoimmune disease which occurs in predisposed individuals as a reaction to gluten sensitivity. Almost 100% of coeliac disease patients possess the genetic risk factors HLA-DQ2 or HLA-DQ8. These are heterodimeric surface receptors consisting of an alpha and a beta chain, which are coded by the HLA-DQA1 and HLA-DQB1 alleles of human leukocyte antigens (HLA).

The determination of HLA-DQ2 and HLA-DQ8 is, above all, significant for the following: doubtful biopsy results, ambiguous serology (especially in children under 2 years old), patients on a gluten-free diet with inconclusive diagnosis, clarification of the genetic predisposition of first-degree relatives of coeliac disease patients, and differentiation from other intestinal diseases. Around 95% of coeliac disease patients have the HLA-DQ2 genotype, which is subdivided into HLA-DQ2.5 and HLA-DQ2.2. HLA-DA2.5 is composed of the allele HLA-DQA1*05:01 (or DQA1*05:05) coding for the alpha chain and the allele HLA-DQB1*02:01 (or DQB1*02:02) coding for the beta chain. HLA-DQ2.2 consists of the allele HLA-DQA1*02 coding for the alpha chain and the allele HLA-DQB1*02:02 coding for the beta chain. Those patients who are not HLA-DQ2 positive exhibit the genotype HLA-DQ8, which, according to the ESPGHAN guidelines, is determined by the presence of the alleles HLA-DQA1*03:01 and HLA-DQB1*03:02. In many studies which investigated the relation between the presence of HLA-DQ and coeliac disease, the alleles HLA-DQA1*03:01/02/03 are not differentiated and therefore all classed as alpha subunit of DQ8.

Moreover, the differentiation between homo- and heterozygous presence of the alleles coding for the alpha and beta subunits of HLA-DQ2.2 and -DQ2.5 enables an improved risk assessment.

Diagnostics: The detection of the two leukocyte antigens is important in the diagnosis of coeliac disease, since almost 100% of coeliac disease patients are positive for either DQ2 or DQ8. Although these markers are not particularly specific – around 50% of the healthy population also carries one of these two antigens – the absence of these risk factors is an important exclusion criterion as they possess a negative predictive value of near to 100%. If neither DQ2.2, DQ2.5, nor DQ8 are detected in a patient, then coeliac disease can be as good as excluded.

The **EUROArray HLA-DQ2/DQ8 Direct** has been specifically optimised for the determination of the disease-associated HLA-DQA1 and HLA-DQB1 alleles coding for the subunits of HLA-DQ2.2, -DQ2.5 and -DQ8. The test system **EUROArray HLA-DQ2/DQ8-h Direct** enables more comprehensive diagnostics since it includes the determination of the homo- and heterozygous presence of the alleles coding for HLA-DQ2.2 or -DQ2.5. Both analyses are extremely easy to perform. Owing to the unique direct procedure, the DNA no longer needs to be isolated. The blood sample is treated with two extraction reagents and can then be directly used in the PCR. The PCR primer and microarray probes are selected and optimised in such way that all relevant HLA-DQA1 and HLA-DQB1 alleles can be reliably detected. Data analysis, data interpretation, and electronic archiving are fully automated using the **EUROArrayScan Software**. The exact analysis of the alpha and beta subunits of the DQ2 and DQ8 molecules ensures reliable and unambiguous results. In combination with antibody diagnostics (see page 100):

Anti-Endomysium IIFT, Anti-Tissue Transglutaminase ELISA and the new highly specific tests Anti-Gliadin (GAF-3X) ELISA and EUROPLUS Anti-Gliadin (GAF-3X) IIFT, the EUROArray HLA-DQ2/DQ8 offers accurate and reliable diagnostics for coeliac disease and dermatitis herpetiformis.

Product overview

Parameter	Sample material	Application	Order number	Page
HLA-DQ2/DQ8 -h Direct	Whole blood/ genomic DNA	Molecular genetic in vitro determination of disease-associated HLA-DQA1 and HLA-DQB1 alleles in human genomic DNA in the diagnosis of gluten-sensitive enteropathy (coeliac disease, sprue) and dermatitis herpetiformis.	MN 5320-####-V	284
HLA-DQ2/DQ8 Direct	Whole blood/ genomic DNA	Molecular genetic in vitro determination of disease-associated HLA-DQA1 and HLA-DQB1 alleles in human genomic DNA in the diagnosis of gluten-sensitive enteropathy (coeliac disease, sprue) and dermatitis herpetiformis.	MN 5321-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q134 at www.euroimmun.com

HFE gene (haemochromatosis)

Clinical information: Hereditary haemochromatosis is the most frequent autosomal (gender-independent), recessive inherited metabolic disorder. It results from increased resorption of iron in the upper small intestine. In affected individuals the augmented iron uptake from food leads to an increase in the total iron content in the body from approximately 2 to 6 g (normal value) to up to 80 g with deposition of the iron in the liver, pancreas, spleen, thyroid gland, pituitary gland, heart and joints. In untreated patients irreversible damage occurs, resulting in an increased risk of cardiomyopathy, arthropathy, diabetes mellitus, liver cirrhosis and liver and pancreas carcinoma.

Two mutations in the HFE gene are directly associated with this disease. They lead to a loss or reduction of the physiological function of the Hfe protein. The two mutations result in the amino acid substitutions C282Y and H63D, which represent the most frequent haemochromatosis-associated mutations (90 %). The penetrance of the mutations is dependent on age and gender. Thus the disease does not manifest in all carriers of these mutations. The strongest disease association is observed in patients with a homozygous C282Y mutation, whereby the penetrance is much lower in young women than in men due to menstruation. While 80 % of men under 40 with this gene defect develop haemochromatosis, less than 40 % of women do so. The penetrance increases to 95 % of men and 80 % of women for the population group of over 40 year olds. Besides C282Y and H63D, there are two additional rare mutations in the HFE gene that are also associated with the development of haemochromatosis. These cause either a change in the amino acid sequence (S65C) of the Hfe protein or early termination of protein synthesis (E168X).

New studies show that 90 to 100 % of haemochromatosis patients exhibit homozygous gene defects. However, even a mutation in one HFE allele is sufficient to cause at least minor abnormalities in iron metabolism. In Germany, more than 200,000 people currently suffer from hereditary haemochromatosis. This condition is one of the most frequent genetically caused diseases in northern Europe.

Diagnostics: The **EUROArray Haemochromatosis (2 SNP+) Direct** is optimised for reliable determination of the two most common haemochromatosis-associated mutations, C282Y and H63D, in the HFE gene. A more comprehensive investigation, additionally encompassing the more rarely occurring mutations, is offered by the test system **EUROArray Haemochromatosis (4 SNP+) Direct**, which provides analysis of C282Y, H63D, S65C and E168X. Both analyses are extremely easy to perform. With the unique direct procedure, the DNA no longer needs to be isolated. The blood sample is treated with two extraction reagents and can then be used directly in the PCR. The PCR primers and microarray probes in these test systems have been chosen so that the mutations in the HFE gene described above are clearly identified. Data analysis, data interpretation and electronic archiving are fully automated using the **EUROArrayScan software**. When a positive result is obtained, the system differentiates between homozygous and heterozygous mutations. The EUROArray Haemochromatosis (4 SNP+ or 2 SNP+) Direct ensures the highest possible reliability of results, in particular for rare genotypes. The test system includes unique controls that indicate whether the analysed DNA contains further known mutations in direct vicinity of the investigated sequence variants that may affect the binding to the probes and, consequently, the test result.

The determination of mutations in the HFE gene allows a predisposition for hereditary haemochromatosis to be identified already in childhood. Suitable preventative measures (e.g. reduced consumption of high-iron-containing foods) can then be implemented.

Product overview

Parameter	Sample material	Application	Order number	Page
Haemochromatosis (4 SNP+) Direct	Whole blood/ genomic DNA	Molecular genetic in vitro determination of two or four mutations in the HFE (high iron) gene in human genomic DNA in the detection or exclusion of the genetically caused iron overload disorder hereditary haemochromatosis in cases of conspicuous patient or family anamnesis	MN 5520-####-V	284
Haemochromatosis (2 SNP+) Direct	Whole blood/ genomic DNA		MN 5521-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular genetics

ApoE · F V / II / MTHFR · HLA-B27 · HLA-B57:01 · HLA-Cw6 · HLA-DQ2/8 · HFE · LCT

For more information on this subject scan the QR code or enter the Quick Link code q150 at www.euroimmun.com

LCT gene (lactose intolerance)

Clinical information: Primary lactose intolerance is based on a genetically caused deficiency of the digestive enzyme lactase in the intestine, which is responsible for breaking down the disaccharide lactose into its sugar monomers glucose and galactose. Unsplit lactose is fermented by bacteria in the ileum and the large intestine, resulting in fermentation products which cause digestive disorders and the typical symptoms of lactose intolerance. These include abdominal pain, nausea, meteorism and diarrhoea. Secondary manifestations of primary lactose intolerance can include deficiencies (e.g. vitamin deficiency) and, as a result, unspecific symptoms such as fatigue, chronic tiredness and depression. Around 20 % of Europeans and almost 100 % of the population in large parts of Asia and in the south of Africa have a lactose intolerance. However, mutations which lead to a permanently increased lactase production and consequently to a tolerance to lactose (lactase persistence) can also occur.

The two most frequent mutations associated with primary lactose intolerance are the polymorphisms 13910 C/T and 22018 G/A, which are localised in the promoter region of the lactase (LCT) gene. According to the current state of knowledge, homozygous carriers of 13910 C/C and 22018 G/G develop symptoms of lactose intolerance, while heterozygous carriers of 13910 C/T and 22018 G/A only present symptoms in situations of stress or with intestinal infections. Homozygous carriers of 13910 T/T and 22018 A/A are lactase persistent and do not show any symptoms.

Since there is not only the genetically caused (primary) form of lactose intolerance (below 50 % lactase activity), but also secondary lactose intolerance, which can usually be overcome within some months, it is important for patients to clarify the exact cause of the disease. Alongside molecular genetic test systems, indirect serological detection methods such as hydrogen breath test (H_2 breath test), IgE or IgG antibody test, or blood sugar tests are performed. These, however, cannot distinguish between the primary and the secondary form of lactose intolerance due to their low specificity and extremely low sensitivity. Consequently, reliable and accurate diagnosis of lactose intolerance requires genetic diagnostic detection, alongside assessment of the clinical symptoms.

Diagnostics: The **EUROArray Lactose Intolerance Direct** has been optimised for reliable detection of the most important genetic risk factors for primary lactose intolerance. It is extremely easy to perform. Owing to the unique direct procedure, the DNA no longer needs to be isolated. The blood sample is treated with two extraction reagents and can then be used directly in the PCR. The PCR primer and microarray probes have been selected and optimised in such way that the polymorphisms 13910 C/T and 22018 G/A mentioned above are clearly detected. Data analysis, data interpretation, and electronic archiving are fully automated using the **EUROArrayScan Software**. In the case of a positive result for a mutation, differentiation between homozygous and heterozygous presence is included in the result. The EUROArray Lactose Intolerance Direct also enables highest result reliability for rarely occurring genotypes. For this, the test system incoporates unique controls that detect further mutations in the direct vicinity of the investigated sequence variants which might affect the binding to the probes and hence the determination.

Product overview

Parameter	Sample material	Application	Order number	Page
Lactose Intolerance Direct	Whole blood/ genomic DNA	Molecular genetic in vitro determination of the single nucleotide polymorphisms 13910 C/T and 22018 G/A in the LCT gene in human genomic DNA for diagnosis of primary lactose intolerance	MN 5351-####-V	284

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular infection diagnostics

Dermatomycosis · HPV · STI · Zika Virus

For more information on this subject scan the QR code or enter the Quick Link code q158 at www.euroimmun.com

Dermatomycosis

Clinical information: Dermatomycoses are infections of the skin, hair and nails, which are caused in most cases by dermatophytes, and in rarer cases by yeasts and moulds. The dermatophytes encompass fungi of the genera Trichophyton, Epidermophyton, Nannizzia, Paraphyton, Lophophyton, Microsporum and Arthroderma. Depending on the main host, dermatophytes are divided into anthropophilic (humans), zoophilic (animals) and geophilic (soil) species. Human pathogenic yeasts and moulds include Candida spec., Scopulariopsis brevicaulis, Fusarium spec. and Aspergillus fumigatus.

Fungal infections of the skin are the most frequently occurring infectious diseases with high relapse rates. Worldwide, approximately 20 to 25 % of the population is affected by fungal skin diseases. Around 70 % of all human dermatophyte infections are caused by anthropophilic species. Zoophilic dermatophytes often cause severe inflammatory reactions in humans. The transmission of zoophilic dermatophytes to humans occurs via close contact, especially with pets, which are often asymptomatic carriers. Geophilic dermatophytes cause disease less frequently in humans. Contact with e.g. Nannizzia gypsea, however, can lead to infections on the hands and arms in gardeners or farm workers.

The clinical image of dermatomycoses is very heterogeneous and cannot always be differentiated from other dermatoses, such as eczema, psoriasis, erysipelas, or autoimmune diseases. Further, a simultaneous bacterial infection, pretreatment with corticosteroid-containing preparations or secondary contact allergy can hinder identification of dermatomycoses. Dermatomycoses must always be treated. Before starting therapy, a positive pathogen detection result should be present. This allows the oftentimes lengthy therapy to be optimally selected, taking into account the different activity spectra of antifungal drugs.

Diagnostics: Standard laboratory diagnostics of dermatomycoses encompass the microscopic detection of fungus and the attempt to culture the pathogen from clinical material. Culturing is generally time-consuming and may be hindered by antimycotic therapy started before taking the sample. Especially in mixed infections, false diagnoses are often made based on culture methods, since slowly growing species are overlooked or overgrown by other pathogens in the sample.

The EUROArray Dermatomycosis combines a multiplex PCR with a microarray and enables detection of up to 50 dermatophytes as well as clear species identification of up to 23 dermatophytes and 6 yeasts/moulds in one reaction. The detection is highly specific and sensitive, even after the start of therapy, and offers a huge time advantage over detection by culture. The EUROArray Dermatomycosis thus contributes significantly to improved identification of dermatomycosis pathogens and finding the respective specific treatment. It also aids quick determination of the infection source.

The EUROArray Dermatomycosis offers fast, reliable and precise detection of dermatophytes, yeasts and moulds. The test is extremely easy to perform – no in-depth molecular biology knowledge is required. Data analysis, data interpretation and electronic archiving are fully automated using EUROArrayScan software.

Product overview

Parameter	Sample material	Application	Order number	Page
Dermatomycosis	DNA	PCR-based molecular genetic direct detection of up to 50 dermatophytes and clear species identification of up to 23 dermatophytes and 6 yeasts/moulds	MN 2850-####	287

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code g080 at www.euroimmun.com

Molecular infection diagnostics

Dermatomycosis · HPV · STI · Zika Virus

For more information on this subject scan the QR code or enter the Quick Link code q136 at www.euroimmun.com

Human papillomavirus

Clinical information: Genital human papillomaviruses (HPV) are the most frequently sexually transmitted viruses. Transmission of HPV infection from mother to newborn during birth is also possible. The worldwide HPV prevalence is estimated to be 2 to 44 % in women and 4 to 45 % in men. However, the prevalences vary considerably between population groups, depending on culture and sexual activity. HPV only infect epithelial cells, where they replicate in the cell nuclei. HPV can cause unregulated tumour-like growth of the host cells, which can be either benign, with warts forming at the site of infection, or malignant, as in cervical carcinoma.

So far, 30 genital HPV types have been described. They are divided into two groups according to their oncogenic potential: high-risk and low-risk HPV. While high-risk HPV are involved in the development of carcinoma and can be detected in over 99 % of cervical carcinomas, low-risk HPV alone are only found in non-malignant tissue changes. The WHO has officially classified genotypes 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 and 66 as oncogenic and thus as high-risk HPV. HPV 16 can be detected in 50 to 60 % and HPV 18 in 10 to 20 % of cervical carcinomas. However, other HPV, such as 26, 53, 68, 73 and 82 have also been found in cervical carcinoma and should therefore also be considered as high-risk HPV. Low-risk viruses include HPV 6 and 11, the main causative agents of genital warts (Condylomata acuminata, fig warts). Further low-risk types are 40, 42, 43, 44, 54, 61, 70, 72, 81 and 89 (CP6108). Although infections with low-risk HPV are not potentially lethal, the consequences of the infection, e.g. benign genital warts, can represent a physical and mental impairment for the patient. In Germany, around 1 % of people between 15 and 49 years of age are affected.

For assessment of the course of HPV infection and the risks involved it is not only important to differentiate between high-risk and low-risk viruses but also to discriminate between the different viruses in the high-risk group.

Diagnostics: Alongside cytology (Pap smear), direct detection methods for HPV play a very important role in the early diagnosis of cervical carcinoma. They are based on the detection of viral DNA, mainly using PCR, or the detection of viral RNA produced by the host cells. Whereas the Pap smear is used to investigate cervical cells for pathological changes, a PCR-based test is able to detect an HPV infection before morphological cell changes have occurred.

While HPV tests based on conserved genes require only a few primer systems, the detection of the oncogenes E6/E7, which vary considerably in the different HPV, is much more complicated. The disadvantage of using conserved genes for HPV detection is that the genes may be lost during integration of viral DNA into the host DNA. PCR systems based on these sequences can therefore lead to false negatives despite viral DNA being present. The **EUROArray HPV** is based on the detection of oncogenes E6/E7, which allows the highest possible sensitivity.

The use of subtype-specific primer systems and probes in the **EUROArray HPV** allows the detection and typing of all 30 relevant genital HPV in one test run – namely 18 high risk HPV (16, 18, 26, 31, 33, 35, 39, 45, 51, 52, 53,

56, 58, 59, 66, 68, 73, 82) and 12 low risk HPV (6, 11, 40, 42, 43, 44, 54, 61, 72, 81, 89, 70). The **EUROArray HPV** is extremely easy to peform in comparison to other molecular biological methods – no in-depth molecular biology knowledge is required. Data analysis, data interpretation and electronic archiving are fully automated using the **EUROArrayScan software**.

Product overview

Parameter	Sample material	Application	Order number	Page
Human papillomavirus (HPV)	DNA	Molecular diagnostic test procedure providing PCR-based direct detection of human papillomaviruses (HPV), which are involved in the development of neoplasms, in particular cervical carcinoma	MN 2540-####	286

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular infection diagnostics

Dermatomycosis · HPV · STI · Zika Virus

For more information on this subject scan the QR code or enter the Quick Link code q143 at www.euroimmun.com

STI – Sexually transmitted infections

Clinical significance: Infections with sexually transmitted pathogens, in particular Chlamydia, Neisseria, Mycoplasma, Ureaplasma and Trichomonas, often lead to inflammation of the urogenital tract. Untreated, they may ascend and eventually lead to infertility. Some pathogens, e.g. Treponema pallidum, can spread in the whole body and eventually lead to death. Infections with sexually transmitted pathogens often proceed asymptomatically in the early stage, so that they may remain undetected and only become obvious when they have turned chronic. Infections with the herpes simplex viruses (HSV) -1 and -2 persist lifelong, but only show in acute breakouts by formation of blisters in the facial/labial or genital area. In severe courses they may even lead to encephalitis or meningitis.

In addition to the direct consequences for the patient, infections with most of the above pathogens during pregnancy can lead to intrauterine death, premature birth or damage to the foetus. Moreover, many pathogens can be transmitted to the newborn during birth, causing severe postnatal infections. Herpes virus infections in newborns may lead to neonatal herpes encephalitis or disseminated forms which are associated with high mortality rates.

Diagnostics: The methods which are commonly used for detection of infections with sexually transmitted pathogens encompass culturing, indirect detection by determination of pathogen-specific antibodies and direct detection, in which the pathogen itself is detected immunologically or by means of PCR. Since detection by culturing is especially time-consuming or even impossible for Chlamydia, Mycoplasma, Ureaplasma and Treponema, use of other detection methods, e.g. PCR-based procedures, is generally recommended or required.

The **EUROArray STI-11** enables simultaneous detection of 11 sexually transmitted pathogens in one reaction: Chlamydia trachomatis, Neisseria gonorrhoeae, HSV-1 and -2, Haemophilus ducreyi, Mycoplasma genitalium and hominis, Treponema pallidum, Trichomonas vaginalis, and Ureaplasma parvum and urealyticum. Timely detection of these pathogens and subsequent targeted treatment can prevent consequential damage, which can lead to severe chronic diseases or infertility. The detection using the EUROArray STI-11 is highly specific and sensitive and significantly faster than determination by culture. Moreover, the combined detection of these pathogens with the EUROArray STI-11 is especially useful for clarifying ambiguous clinical findings, identifying asymptomatic infections in pregnancy care, and identifying multiple infections with different sexually transmitted pathogens. The EUROArray STI-11 therefore contributes substantially to improving diagnosis of sexually transmitted infections.

The data analysis and interpretation and the electronic archiving for the EUROArray STI-11 are fully automated by the **EUROArrayScan software**. There are different EUROArray STI test systems available for the detection of different pathogen combinations, also of smaller pathogen ranges, so that the determination can be performed according to the individual requirements (see table).

The **EURORealTime HSV-1/2** test allows highly specific and sensitive detection of HSV-1 and/or HSV-2 as well as quantification of viral DNA by means of real-time PCR. It is suitable both for early diagnosis of HSV-1 and HSV-2 infections and differentiation of the two virus types. Analysis of raw data, evaluation, report generation and electronic archiving are fully automated by means of **EURORealTime Analysis Software**. The standard curves used for automatic quantification of the viral load can be saved in the software and, if desired, used again in future runs.

Product overview

Method / Parameter	Sample material	Application	Order number	Page
EUROArray STI - 11	DNA	PCR-based direct detection of C. trachomatis, N. gonorrhoeae, HSV-1, HSV-2, H. ducreyi, M. genitalium, M. hominis, T. pallidum, T. vaginalis, U. parvum and U. urealyticum	MN 2830-####	286
EUROArray STI -7	DNA	PCR-based direct detection of H. ducreyi, M. genitalium, M. hominis, T. pallidum, T. vaginalis, U. parvum and U. urealyticum	MN 2830-####-1	286
EUROArray STI - CT/NG	DNA	PCR-based direct detection of C. trachomatis and N. gonorrhoeae	MN 2830-####-2	286
EUROArray STI - CT/NG/TP/TV	DNA	PCR-based direct detection of C. trachomatis, N. gonorrhoeae, T. pallidum and T. vaginalis	MN 2830-####-3	286
EUROArray STI - 6	DNA	PCR-based direct detection of C. trachomatis, N. gonorrhoeae, HSV-1, HSV-2, T. pallidum and T. vaginalis	MN 2830-####-4	286
EUROArray STI - HSV-1/2	DNA	PCR-based direct detection of HSV-1 and HSV-2	MN 2830-####-5	287
EURORealTime HSV-1/2	DNA	Real-time PCR-based quantitative direct detection of HSV-1 and HSV-2	MP 2530-0125	287

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code q080 at www.euroimmun.com

Molecular infection diagnostics

Dermatomycosis · HPV · STI · Zika Virus

For more information on this subject scan the QR code or enter the Quick Link code q147 at www.euroimmun.com

Zika Virus

Clinical significance: Zika virus (ZIKV) is an arbovirus of the Flaviviridae family. The virus is mainly transmitted by mosquitos of the genus Aedes, but transmission via sexual intercourse has also been reported. The virus was first observed in African countries. In recent years, there were larger outbreaks in tropical and subtropical regions in Asia, on islands in the Pacific, and in Latin America.

The disease course is usually mild. The symptoms are near-to identical to those of dengue or chikungunya virus infections. After an incubation time of five to ten days a flu-like illness develops with fever, rash, arthralgia, myalgia, headache and conjunctivitis. An increase in neurological diseases such as Guillain-Barré syndrome was registered following infections with ZIKV. Moreover, pregnant women infected with ZIKV can transmit the virus to the foetus, which can lead to disorders in brain development, causing severe malformations of the brain and microcephaly. There is no specific treatment for ZIKV infections as yet. Protection from mosquito bites serves as a preventative measure. A vaccine is not available.

Diagnostics: The RNA genome of ZIKV can be directly detected up to 5 to 10 days after onset of symptoms in serum and up to 14 to 21 days in urine by means of polymerase chain reaction (PCR). Specific antibodies against ZIKV, in contrast, are first detected several days after onset of syptoms. Therefore, direct detection of ZIKV RNA plays an important role especially in early stages of the infection, while serological antibody detection is especially relevant for the diagnosis of infections at later stages. Owing to detection based on RNA, ZIKV infections can be clearly distinguished from other viral infections e.g. dengue or chikungunya virus, which cause similar symptoms and are endemic in the same regions.

The **EURORealTime Zika Virus** test provides highly specific and sensitive direct detection of ZIKV by means of reverse transcriptase real-time PCR. Reverse transcription, amplification, and detection of ZIKV cDNA take place in a single reaction. Raw data analysis, interpretation of data, creation of reports, and electronic archiving of results, taking into account all internal and external controls, are performed fully automatically by the **EURORealTime Analysis Software.** The data processing steps required in real-time PCR analyses are thus significantly simplified and accelerated. Moreover, the software conveniently guides the user through the entire workflow, helping to prevent mistakes.

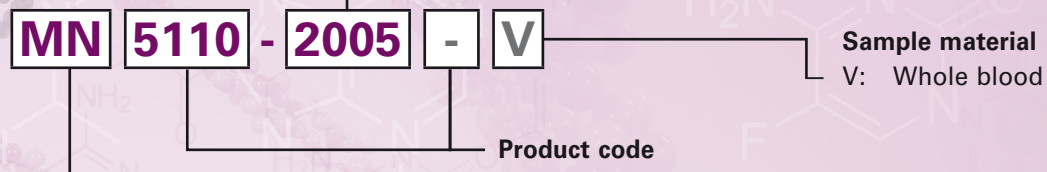
EUROIMMUN offers the complete range of test systems for specific detection of ZIKV infections, both for direct detection by real-time PCR and serological detection of specific antibodies.

Product overview

Method/parameter	Sample material	Application	Order number	Page
EURORealTime Zika Virus	RNA from serum and urine	Real-time PCR-based direct detection of Zika virus	MP 2668-####	287
Further serological products				
Method	**Substrate**	**Application**	**Order number**	**Page**
ELISA	Recombinant non-structural protein (NS1) from Zika virus	Highly specific detection of Zika virus infections	EI 2668-9601 A/G/M	198
IFT	Arbovirus Fever Mosaic 2: Zika virus, chikungunya virus, dengue virus	For differential diagnosis of arbovirus infections, in particular ZIKV, DENV and CHIKV	FI2668-####-1 G/M	208

To view all EUROIMMUN products for this subject scan the QR code or enter the Quick Link code g080 at www.euroimmun.com

Products for molecular genetic diagnostics



Format
- 0803: 8 slides with 3 fields each
- 0505: 5 slides with 5 fields each
- 1005: 10 slides with 5 fields each
- 2005: 20 slides with 5 fields each

Sample material
V: Whole blood

Product code

Product classification
- MN: Test system EUROArray (molecular genetic determinations) ..... page 284
- MN: Test system EUROArray (molecular infectious diagnostics) ..... page 286
- MP: Test system EURORealTime PCR (molecular infectious diagnostics) ..... page 287

For product orders the amount, product code and test name are required. **Test kits** comprise all reagents needed to perform the investigation.

EUROArray for Molecular Genetic Determinations (Test Systems)

Order No.	Description	Format
MN 5110-0803-V	EUROArray HLA-B27 Direct	08 x 03
MN 5110-0505-V		05 x 05
MN 5110-1005-V		10 x 05
MN 5110-2005-V		20 x 05
MN 5150-0803 *	EUROArray HLA-DRB1 Shared Epitope	08 x 03
MN 5150-0505 *		05 x 05
MN 5150-1005 *		10 x 05
MN 5150-2005 *		20 x 05
MN 5150-20803-Q *	EUROArray HLA-DRB1 Shared Epitope	2 x 08 x 03
MN 5150-1005-Q *	with QIAamp DSP Blood Mini Kit	10 x 05
MN 5150-20505-Q *	DNA purification	2 x 05 x 05
MN 5150-2005-Q *		20 x 05
MN 5210-0803-V	EUROArray HLA-B57:01 Direct	08 x 03
MN 5210-0505-V		05 x 05
MN 5210-1005-V		10 x 05
MN 5210-2005-V		20 x 05
MN 5320-0803-V	EUROArray HLA-DQ2/DQ8-h Direct	08 x 03
MN 5320-0505-V		05 x 05
MN 5320-1005-V		10 x 05
MN 5320-2005-V		20 x 05
MN 5321-0803-V	EUROArray HLA-DQ2/DQ8 Direct	08 x 03
MN 5321-0505-V		05 x 05
MN 5321-1005-V		10 x 05
MN 5321-2005-V		20 x 05
MN 5351-0803-V	EUROArray Lactose Intolerance Direct	08 x 03
MN 5351-0505-V		05 x 05
MN 5351-1005-V		10 x 05
MN 5351-2005-V		20 x 05
MN 5410-0803	EUROArray HLA-Cw6	08 x 03
MN 5410-0505		05 x 05
MN 5410-1005		10 x 05
MN 5410-2005		20 x 05
MN 5410-20803-Q	EUROArray HLA-Cw6	2 x 08 x 03
MN 5410-1005-Q	with QIAamp DSP Blood Mini Kit	10 x 05
MN 5410-20505-Q	DNA purification	2 x 05 x 05
MN 5410-2005-Q		20 x 05
MN 5520-0803-V	EUROArray Haemochromatosis (4 SNP+) Direct	08 x 03
MN 5520-0505-V		05 x 05
MN 5520-1005-V		10 x 05
MN 5520-2005-V		20 x 05
MN 5521-0803-V	EUROArray Haemochromatosis (2 SNP+) Direct	08 x 03
MN 5521-0505-V		05 x 05
MN 5521-1005-V		10 x 05
MN 5521-2005-V		20 x 05
MN 5710-0803-V	EUROArray APOE Direct	08 x 03
MN 5710-0505-V		05 x 05
MN 5710-1005-V		10 x 05
MN 5710-2005-V		20 x 05
MN 5820-0803-V	EUROArray FV / FII+ / MTHFR Direct	08 x 03
MN 5820-0505-V		05 x 05
MN 5820-1005-V		10 x 05
MN 5820-2005-V		20 x 05

*) Currently not available as IVD in the European Union.

EUROArray for Molecular Genetic Determinations (Test Systems)

Order No.	Description	Format
MN 5821-0803-V	EUROArray FV / FII+ Direct	08 x 03
MN 5821-0505-V		05 x 05
MN 5821-1005-V		10 x 05
MN 5821-2005-V		20 x 05
MN 5822-0803-V	EUROArray FV Leiden Direct	08 x 03
MN 5822-0505-V		05 x 05
MN 5822-1005-V		10 x 05
MN 5822-2005-V		20 x 05
MN 5823-0803-V	EUROArray FII+ Direct	08 x 03
MN 5823-0505-V		05 x 05
MN 5823-1005-V		10 x 05
MN 5823-2005-V		20 x 05
MN 5824-0803-V	EUROArray MTHFR Direct	08 x 03
MN 5824-0505-V		05 x 05
MN 5824-1005-V		10 x 05
MN 5824-2005-V		20 x 05

EUROArray for Molecular Infectious Diagnostics (Test Systems)

Order No.	Description	Format
MN 2540-0803 MN 2540-0505 MN 2540-1005 MN 2540-2005	EUROArray HPV	08 x 03 05 x 05 10 x 05 20 x 05
MN 2540-20803-Q * MN 2540-1005-Q * MN 2540-20505-Q * MN 2540-2005-Q *	EUROArray HPV with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803 MN 2830-0505 MN 2830-1005 MN 2830-2005	EUROArray STI - 11	08 x 03 05 x 05 10 x 05 20 x 05
MN 2830-20803-Q * MN 2830-1005-Q * MN 2830-20505-Q * MN 2830-2005-Q *	EUROArray STI - 11 with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803-1 MN 2830-0505-1 MN 2830-1005-1 MN 2830-2005-1	EUROArray STI - 7	08 x 03 05 x 05 10 x 05 20 x 05
MN 2830-20803-1 Q * MN 2830-1005-1 Q * MN 2830-20505-1 Q * MN 2830-2005-1 Q *	EUROArray STI - 7 with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803-2 MN 2830-0505-2 MN 2830-1005-2 MN 2830-2005-2	EUROArray STI - CT/NG	08 x 03 05 x 05 10 x 05 20 x 05
MN 2830-20803-2 Q * MN 2830-1005-2 Q * MN 2830-20505-2 Q * MN 2830-2005-2 Q *	EUROArray STI - CT/NG with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803-3 MN 2830-0505-3 MN 2830-1005-3 MN 2830-2005-3	EUROArray STI - CT/NG/TP/TV	08 x 03 05 x 05 10 x 05 20 x 05
MN 2830-20803-3 Q * MN 2830-1005-3 Q * MN 2830-20505-3 Q * MN 2830-2005-3 Q *	EUROArray STI - CT/NG/TP/TV with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803-4 MN 2830-0505-4 MN 2830-1005-4 MN 2830-2005-4	EUROArray STI - 6	08 x 03 05 x 05 10 x 05 20 x 05
MN 2830-20803-4 Q * MN 2830-1005-4 Q * MN 2830-20505-4 Q * MN 2830-2005-4 Q *	EUROArray STI - 6 with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03 10 x 05 2 x 05 x 05 20 x 05
MN 2830-0803-5 MN 2830-0505-5 MN 2830-1005-5 MN 2830-2005-5	EUROArray STI - HSV-1/2	08 x 03 05 x 05 10 x 05 20 x 05

*) QIAamp DNA Mini Kit currently not available as IVD in the European Union.

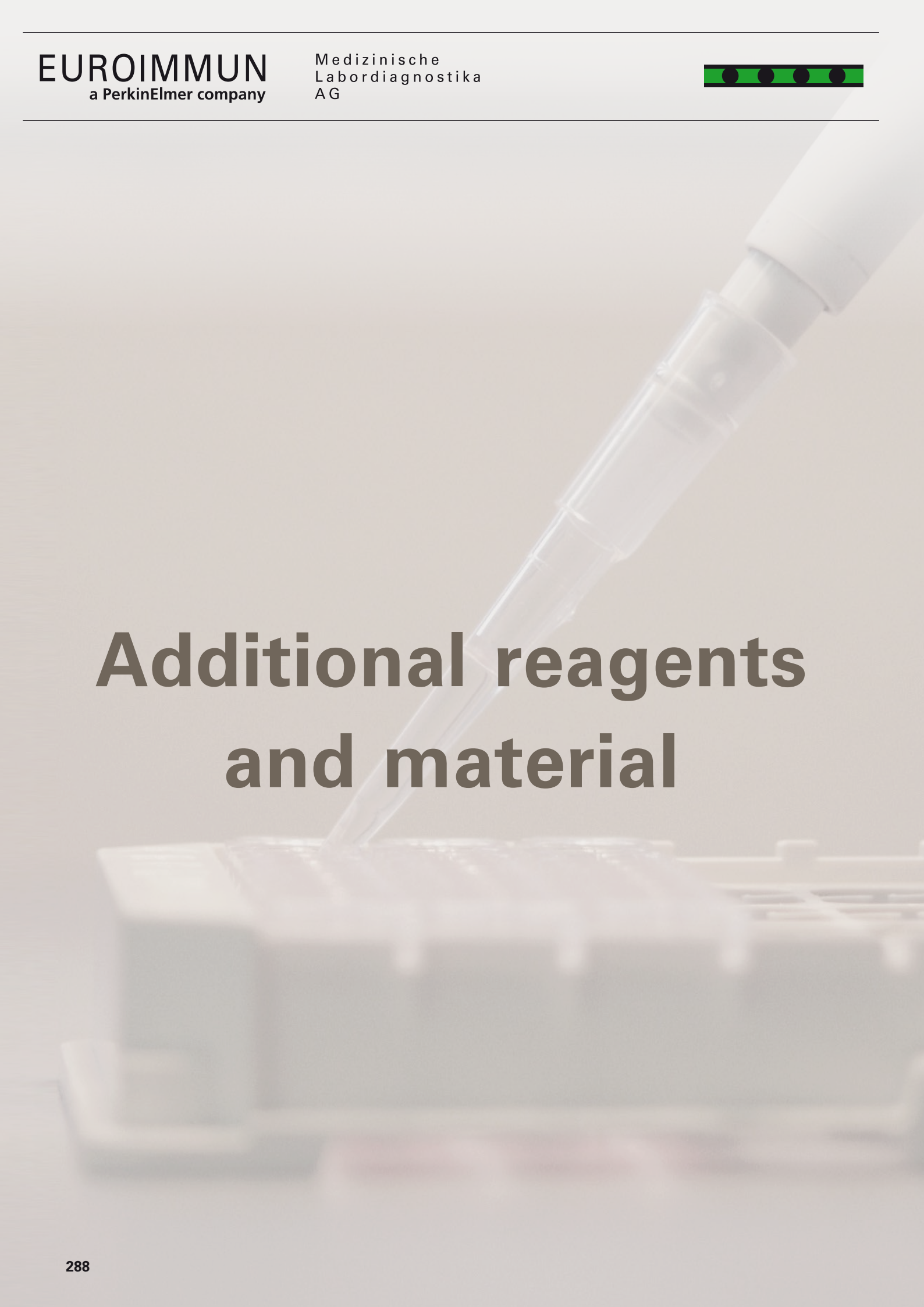
EUROArray for Molecular Infectious Diagnostics (Test Systems)

Order No.	Description	Format
MN 2830-20803-5 Q *	EUROArray STI - HSV-1/2 with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03
MN 2830-1005-5 Q *		10 x 05
MN 2830-20505-5 Q *		2 x 05 x 05
MN 2830-2005-5 Q *		20 x 05
MN 2850-0803	EUROArray Dermatomycosis	08 x 03
MN 2850-0505		05 x 05
MN 2850-1005		10 x 05
MN 2850-2005		20 x 05
MN 2850-20803-Q *	EUROArray Dermatomycosis with QIAamp DNA Mini Kit DNA purification	2 x 08 x 03
MN 2850-1005-Q *		10 x 05
MN 2850-20505-Q *		2 x 05 x 05
MN 2850-2005-Q *		20 x 05

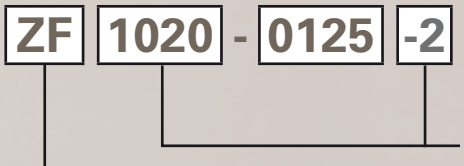
EURORealTime PCR for Molecular Infectious Diagnostics (Test Systems)

Order No.	Description	Format
MP 2530-0125	EURORealTime HSV-1/2	25 reactions
MP 2530-0225		50 reactions
MP 2530-0425		100 reactions
MP 2530-0225-Q *	EURORealTime HSV-1/2 with DNA purification	50 reactions
MP 2530-0425-Q *		100 reactions
MP 2668-0125	EURORealTime Zika Virus	25 reactions
MP 2668-0225		50 reactions
MP 2668-0425		100 reactions

*) QIAamp DNA Mini Kit currently not available as IVD in the European Union.



Additional reagents and material



Product classification

Fluorescence-Labelled Antibodies: Fluorescein (FITC) for EUROIMMUN IIFT

Order No.	Antiserum	Format
AF 101-0115 AF 101-0160 AF 101-0546	FITC-labelled anti-human IgA (goat)	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 102-0115 AF 102-0160 AF 102-0546	FITC-labelled anti-human IgG (goat)	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 103-0115 AF 103-0160 AF 103-0546	FITC-labelled anti-human IgM (goat)	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 104-0115 AF 104-0160	FITC-labelled anti-human IgG+IgG4 (goat/mouse)	1.5 ml (ready for use) 6.0 ml (ready for use)
AF 106-0115 AF 106-0160 AF 106-0546	FITC-labelled anti-human IgAGM (IgA + IgG + IgM goat)	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 302-0115 AF 302-0160 AF 302-0546	FITC-labelled anti-human IgG (goat) primate absorbed	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 601-0115 AF 601-0160 AF 601-0546	FITC-labelled anti-human IgA (goat) with Evans Blue	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 602-0115 AF 602-0160 AF 602-0546	FITC-labelled anti-human IgG (goat) with Evans Blue	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 603-0115 AF 603-0160 AF 603-0546	FITC-labelled anti-human IgM (goat) with Evans Blue	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 606-0115 AF 606-0546	FITC-labelled anti-human IgAGM (IgA + IgG + IgM goat) with Evans Blue	1.5 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 612-0115 AF 612-0160 AF 612-0546	FITC-labelled anti-human C3c (rabbit) with Evans Blue	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 701-0115 AF 701-0160 AF 701-0546	FITC-labelled anti-human IgA (goat) with propidium iodide for EUROPattern	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 702-0115-2 AF 702-0160-2 AF 702-0546-2	FITC-labelled anti-human IgG (goat) with propidium iodide for EUROPattern	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 703-0115 AF 703-0160 AF 703-0546	FITC-labelled anti-human IgM (goat) with propidium iodide for EUROPattern	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank
AF 712-0115 AF 712-0160 AF 712-0546	FITC-labelled anti-human C3c (rabbit) with propidium iodide for EUROPattern	1.5 ml (ready for use) 6.0 ml (ready for use) 5 x 46.0 ml (ready for use) in EUROTank

Further Reagents for EUROIMMUN IIFT

Order No.	Reagent	Format
ZF 1020-0125 ZF 1020-0145 ZF 1020-0530	sample buffer (IIFT)	25.0 ml 4.5 ml 5 x 30.0 ml (ready for use) in EUROTank
ZF 1020-0125-2 ZF 1020-0140-2 ZF 1020-0530-2	sample buffer 2 (IIFT) (only for the Anti-dsDNA sensitive IIFT)	25.0 ml 40.0 ml 5 x 30.0 ml (ready for use) in EUROTank
ZF 1020-0112-3 ZF 1020-0530-3	sample buffer 3 (IIFT) (only for the Anti-Borrelia IIFT IgG)	12.0 ml 5 x 30.0 ml (ready for use) in EUROTank
ZF 1100-1000	salt for PBS, pH 7.2	1 pack
ZF 1101-05100	PBS-Tween (IIFT)	5 x 100.0 ml (ready for use) in EUROTank
ZF 1110-0102 ZF 1110-0120 ZF 1110-0140	Tween 20 (2.0 ml as admixture for 1 liter of PBS)	2.0 ml 20.0 ml 40.0 ml
ZF 1120-0101	additive for CMV buffer (1.0 ml as admixture for 1.0 liter PBS)	1.0 ml
ZF 1121-0530	CMV buffer (IIFT)	5 x 30.0 ml (ready for use) in EUROTank
ZF 1125-1000	distilled water for PBS (only to be used with EUROIMMUN test systems)	1.0 l
ZF 1130-0501 ZF 1130-0601 ZF 1130-0801	urea solution (for the determination of low-avid antibodies in infectious serology)	5 M, 1.0 ml 6 M, 1.0 ml 8 M, 1.0 ml
ZF 1131-0101-1	avidity buffer 1 (for the determination of low-avid antibodies in infectious serology)	1.0 ml
ZF 1131-0101-2	avidity buffer 2 (for the determination of low-avid antibodies in infectious serology)	1.0 ml
ZF 1140-0101 ZF 1140-0104	glycine urea buffer	1.5 ml 4.0 ml
ZF 1150-0115	Evans Blue 2% in PBS	1.5 ml
ZF 1200-0103 ZF 1200-0120 ZF 1200-0130 ZF 1200-0199	mounting medium (containing anti-bleaching reagent)	3.0 ml 20.0 ml 30.0 ml 100.0 ml
ZF 1250-0113	RF absorbent, only for the FTA-ABS IgM test (lyophilized)	for 1.3 ml
ZF 1270-0145	EUROSORB for immunofluorescence (liquid RF absorbent)	4.5 ml
ZF 1280-0105	AB adsorbent (dermatology IIFT)	5.0 ml
ZF 6110-0110 ZF 6110-0150	sorbent for FTA-ABS test (lyophilized)	for 1.0 ml for 5.0 ml
ZF 9000-0000 ZF 9000-0001 ZF 9000-0002	human serum as complement source, frozen, EBV antibody negative (lyophilized)	for 0.05 ml for 0.15 ml for 0.25 ml

Other Items for EUROIMMUN IIFT

Order No.	Item	Format
ZZ 0017-0101	cuvette with insert for incubation of IFT (slides with 50 fields)	1 piece
ZZ 0018-0101	cuvette for incubation of IFT (slides with 50 fields, only to be used with ZZ 0019-0101)	1 piece
ZZ 0019-0101	insert for incubation of IFT (slides with 50 fields)	1 piece
ZZ 3000-0112 ZZ 3000-0122	cover glasses (for embedding slides with 5 or 10 fields)	12 pieces 22 pieces
ZZ 3001-0112-1	cover glasses (for embedding slides with 50 fields)	12 pieces
ZZ 9722-0101	cuvette for incubation of IFT (slides with 5 or 10 fields)	1 piece
ZZ 9801-0101	incubated slide for demonstration purposes	1 piece
ZZ 9911-0130	Extran MA 01 (for cleaning of reagent trays)	30.0 ml
ZZ 9912-0101	Deconex 11 universal (for regeneration of reagent trays)	1.0 kg
ZZ 9921-0125	mikrozid AF liquid (for desinfection of reagent trays)	250 ml
ZZ 9991-0110 ZZ 9991-0120	slide tray for storage of incubated slides with up to 10 fields	for 10 slides for 20 slides
ZZ 9991-0102-1 ZZ 9991-0104-1	slide tray for storage of incubated slides with 50 fields	for 2 slides for 4 slides
ZZ 9997-0102 ZZ 9997-0105	box for packaging of incubated slides (demo slides)	for 2 slides for 5 slides
ZZ 9999-0105 ZZ 9999-0110	reagent tray for the incubation of slides	for slides with 5 fields for slides with 10 fields
ZZ 9999-0510-15	Coded glass plate for the incubation of slides with 10 fields	5 pieces
ZZ 9999-0150-2	reagent tray for the incubation of slides with 2 to 4 BIOCHIPs per field	for slides with 50 fields

Reagents and Other Items for EUROIMMUN Westernblot and EUROLINE

Order No.	Item	Format
ZD 1129-0101 A	secondary reagents EUROLINE/Westernblot IgA	1 reagent kit
ZD 1129-0101 E	secondary reagents EUROLINE allergy IgE	1 reagent kit
ZD 1129-0101 G	secondary reagents EUROLINE/Westernblot IgG	1 reagent kit
ZD 1129-0101 M	secondary reagents EUROLINE/Westernblot IgM	1 reagent kit
ZD 3001-0101 ZD 3001-0401	anti-CCD absorbent	lyophilisate, for 40 mg 4 x lyophilisate, for 40 mg
ZD 9880-0101	Green paper (EUROLineScan)	
ZD 9885-0116 ZD 9885-0130	adhesive foil	1 piece 1 piece
ZD 9895-0130 ZD 9895-20030	incubation tray, black	1 piece, 30 channels 200 pieces, 30 channels
ZD 9897-0130 ZD 9897-0144	incubation tray, black for the volume-reduced incubation of allergy EUROLINE test strips	1 piece, 30 channels 1 piece, 44 channels
ZD 9898-0144 ZD 9898-0148 ZD 9898-3044 ZD 9898-20048	incubation tray, black	1 piece, 44 channels 1 piece, 48 channels 30 pieces, 44 channels 200 pieces, 48 channels
ZD 9899-0108 ZD 9899-10508	incubation tray, white	1 piece, 8 channels 1050 pieces, 8 channels

Reagents and Other Items for EUROArray

Order No.	Item	Format
ZM 0121-0050	WASH REAGENT 1	500 ml concentrate
ZM 0122-0012	WASH REAGENT 2	125 ml concentrate
ZM 0123-0101	EUROArray wash buffer set	1 set
ZM 0210-1000-Q *	Qiagen Collection Tubes	1000 tubes
ZM 0220-1213-Q *	Qiagen Carrier RNA	12 raction wells 1350 µg each
ZM 0221-0126-Q *	Qiagen Buffer AL	264 ml
ZM 0281-5001	Copan regular FLOQSwab with 1 ml eNAT transport and conservation medium (608CS01R)	50 x 01
ZM 0282-5002	Copan L-shape FLOQSwab with 2 ml eNAT transport and conservation medium (606CS01L)	50 x 02
ZM 9999-0105	TITERPLANE reagent tray for EUROArray slides	for slides with 5 fields

*) Currently not available as IVD in the European Union.

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