








RNA Custom Oligonucleotides

-  Small-, mid- and large-scale production of RNA Oligos
-  Delivered in Plate or single tube/vial format
-  R&D, Diagnostic and Therapeutic RNA Oligonucleotides
-  ISO 9001, 13485 and cGMP compliant manufacturing
-  Portfolio covering
 - siRNA
 - RNA longmers i. e. sgRNA, tRNA ...
 - Gapmers/RNA-DNA Chimera
 - RNA Aptamers
 - Back-bone modified RNA – LNA, 2’O-Me RNA, PTO linkage ...
 - Nucleobase modified RNA
 - ss/ds RNA –peptide/lipid/sugar conjugates for RNA delivery into cells
-  Exhaustive panel of QC Analytical methods and services
-  Custom formulation, Fill & Finish support and services

We have been focused on custom oligonucleotides for more than 25 years – still are ...

metabion evolved into the one-stop-shop for your oligo requirements from

- **R&D**
- **Diagnostic** to
- **Therapeutic** applications.

A globally renowned “**oligo boutique**” and **best-in-class** provider of custom **high-quality oligos**.

In this together ...



Custom Synthesis
of High Quality Oligos

Spotlight on

RNA Oligonucleotides

Small-, mid- and large-scale production of RNA Oligos

- From a minimum of 1 nmol R&D oligos to mmoles of Diagnostic and Therapeutic oligos
- Standard production scales
- Customized quantities delivered.

Delivered in Plate or single tube/vial format

- Dry or wet
- “In all” (as per selected production scale) or distinctive amounts/normalized
- Annealing buffer provided for ds RNA (dry).

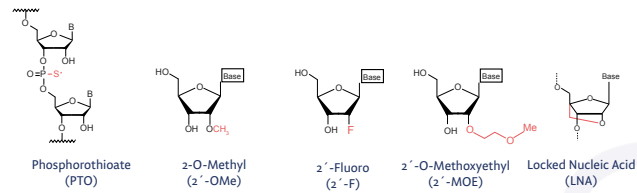
R&D, Diagnostic and Therapeutic RNA Oligonucleotides

- ISO 9001, 13485 and cGMP compliant manufacturing
- From R&D to GMP grade manufacturing
- Support and services, scale-up and process transfer from Research to Clinics
- Vast range of modifications available.

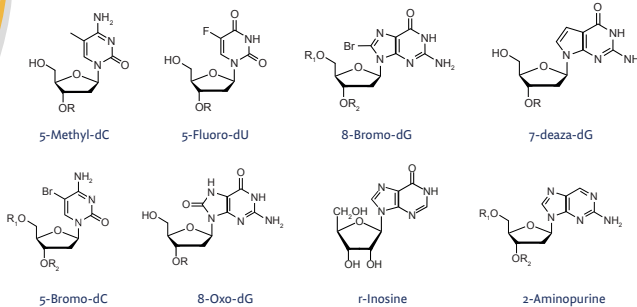
metabion – one-stop-shop for custom RNA oligonucleotides!

Modification Portfolio covering

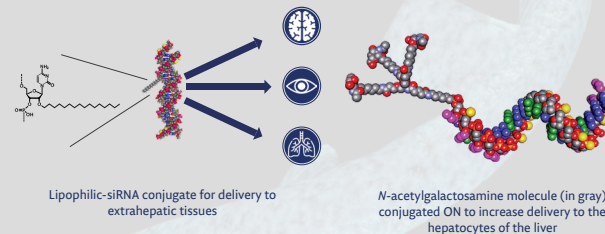
- Backbone modifications, 3', internal, 5' – sugar and internucleotide linkage modifications, i. e. Phosphorothioate (PTO/PS), 2'-OMe, 2'-F, 2'-MOE, LNA, ...



- Nucleobase modified RNA - 3', internal, 5' - pyrimidine and purine modifications, i. e. 5-Me-dC, 5-Br-dC, 8-Br-dG, 7-deaza-dG, ...



- Conjugated ss/dsRNA - 3', internal, 5' - i. e. GalNac, Cholesterol, PEG, Peptides, fluorescent dyes, haptens, ...



Purification and QC Analytical methods and services

- Purification by RP- and/or IEX HPLC
- Analytical purity by UPLC/HPLC
- Identity by Mass Spectrometry (Maldi, ESI, Q-ToF).

Custom formulation, Fill & Finish & Delivery support and services

- Custom mixes of complementary oligonucleotides (duplexes)
- Custom formulations and aliquotation/replication in tubes or plates
- Custom formulation/normalization – dry and wet
- Custom labelling of kit components and complete kit assembly
- Custom logistics including drop-shipping to your customers
- Custom application programming interface (API) for integration with ordering and billing systems.

metabion – one-stop-shop for custom RNA oligonucleotides!