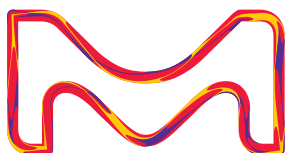


your silence RNAissance

Experience artfully better
siRNA tools, service and
expertise to simplify your
research masterpiece.



Custom siRNA

We can synthesize Custom siRNA using your sequences or sequences we have bioinformatically designed for you.

Product Benefits

- Complimentary designs with the Rosetta algorithm*
- Simplified transfection optimization with 11 Positive Control siRNA
- Distinguish sequence-specific silencing from non-specific effects with 8 negative control siRNA
- Custom services allow for flexibility in experimental set up

Custom siRNA Specifications

Quantities	<ul style="list-style-type: none">• 2 (10 nmol), 5 (25 nmol), 10 (50 nmol) & 50 (250 nmol) OD• For larger quantities & in-vivo-grade material, visit SigmaAldrich.com/iscaleoligos
Purification	<ul style="list-style-type: none">• Desalt or HPLC
Sequence Form	<ul style="list-style-type: none">• 19 to 27mer duplexes
Modifications	<ul style="list-style-type: none">• Biotin, Phosphate, Amino-Modifier (C6, C7), 6-FAM™, Cyanine 3, Cyanine 5, Cyanine 5.5, 2'-OMe, Phosphorothioate, Flipped Base, 2'-Fluoro, Inverted Abasic & Thiol-Modifier-C6 S-S• Locked Nucleic Acid available in every country outside of the United States• Inquire for feasibility of Locked Nucleic Acid & other modifications
Quality Control	<ul style="list-style-type: none">• 100% mass spectrometry**
Format	<ul style="list-style-type: none">• Supplied dry in tubes or plates• Pooling*** & aliquoting available (inquire for feasibility)

Predesigned siRNA

MISSION® Predesigned siRNA were created using the proprietary Rosetta Inpharmatics siRNA Design algorithm*.

Product Benefits

- Best-in-class, guaranteed gene silencing
- Efficient knockdown of low abundance messages
- Simplified transfection optimization with 11 Positive Control siRNA
- Distinguish sequence-specific silencing from non-specific effects with 8 negative control siRNA
- Hundreds of functionally-validated predesigned siRNA

Product Features

- Species: Human, Mouse & Rat
- Quantities: 2 (10 nmol), 5 (25 nmol) & 10 (50 nmol) OD
- Purification: Desalt or HPLC
- Sequence Form: 21mer duplexes with dTdT overhangs
- Modifications: 5' amine on the sense strand
- Quality Control: 100% mass spectrometry**
- Format: Supplied dry in tubes
 - Pooling*** & aliquoting available (inquire for feasibility)

Notes:

Rosetta Algorithm* – The Rosetta siRNA Design Algorithm utilizes Position-Specific Scoring Matrices and knowledge of the seed region to predict the most specific and effective sequences for your target genes. The algorithm's rules were developed utilizing empirical data collected from gene silencing experiments carried out over three years.

Quality Control** – In addition to mass spectrometry, depending on the manufacturing site, PAGE may be used to assess siRNA duplexes.

To place an order or receive technical assistance

Order/Customer Service: SigmaAldrich.com/sirna
Technical Service: SigmaAldrich.com/techservice
Safety-related Information: SigmaAldrich.com/safetycenter

SigmaAldrich.com

Validated siRNA

Many common gene targets have been validated for $\geq 75\%$ mRNA knockdown (see **Figure 1** for example data and visit the web page to see a table of commonly-ordered, validated siRNA by gene symbol). Validated siRNA are suitable for transfection optimization and as positive controls.

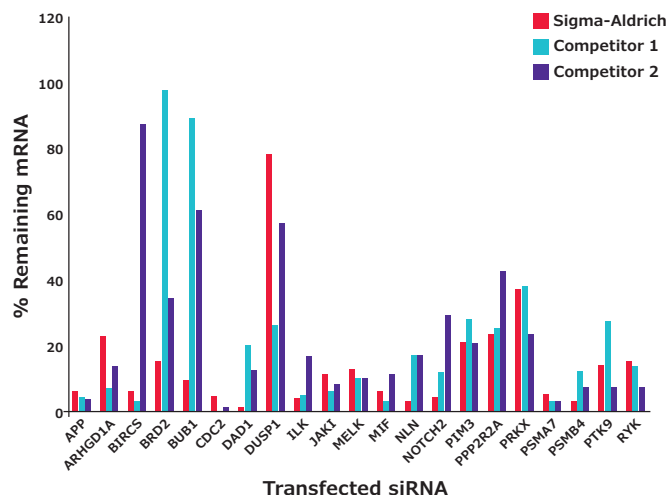


Figure 1. HeLa cells transfected with predesigned siRNA at a concentration of 30 nM. The percentage remaining gene expression levels were measured via qPCR 48 hours after transfection (relative to mock). Data represents the mean of four biological replicates.

Product Pools*** – A popular pooled format is 4 duplexes at 5 nmol each combined into one tube (20 nmol pooled)) plus the exact same 4 duplexes also at 5 nmol each in separate tubes (another 20 nmol individual). However, our sophisticated liquid handlers allow for a wide range of other possibilities.

