

Thermo Scientific Dharmacon

siGENOME and ON-TARGET^{plus}

siRNA Reagents

Product Description

- Pooled and individual siRNAs designed using the SMARTselection™ algorithm to silence specific target genes
- ON-TARGET^{plus}® reagents are modified with a patent-pending modification to enhance specificity
- Annealed double-stranded RNA oligonucleotides
- 3'-UU overhangs on both strands
- 5'-Phosphate on antisense strand
- Mass of each strand confirmed by MALDI-TOF mass spectrometry

Product	Description	Catalog Number
siGENOME SMARTpool® ^a	<ul style="list-style-type: none"> • One tube containing a mixture of four SMARTselection-designed siRNAs targeting one gene • Sequence information provided 	M-XXXXXX-XX
ON-TARGET ^{plus} SMARTpool ^a		L-XXXXXX-XX
siGENOME Set of 4	<ul style="list-style-type: none"> • Individual SMARTselection-designed siRNA(s) from corresponding SMARTpool reagent • Sequence information provided 	MQ-XXXXXX-XX
siGENOME Set of 4 Upgrade		MU-XXXXXX-XX
siGENOME Individual Duplex		D-XXXXXX-XX
ON-TARGET ^{plus} Set of 4	<ul style="list-style-type: none"> • Individual SMARTselection-designed siRNA(s) from corresponding ON-TARGET^{plus} SMARTpool reagent • Sequence information provided 	LQ-XXXXXX-XX
ON-TARGET ^{plus} Set of 4 Upgrade		LU-XXXXXX-XX
ON-TARGET ^{plus} Individual Duplex		J-XXXXXX-XX
Custom SMARTpool	<ul style="list-style-type: none"> • One tube containing 50 nmol of mixture of four SMARTselection-designed siRNAs targeting one gene • Sequence information provided 	M-XXXXXX-XX
Custom SMARTpool PLUS	<ul style="list-style-type: none"> • One tube containing 50 nmol of a mixture of four SMARTselection-designed siRNAs targeting one gene and 5 nmol of each individual duplex • Sequence information provided 	Q-XXXXXX-XX
5X siRNA Buffer	300 mM KCl, 30 mM HEPES-pH 7.5, 1.0 mM MgCl ₂	B-002000-UB

Functional Guarantee

Each SMARTpool reagent and 3 of 4 individual duplexes are guaranteed to silence target gene expression at the mRNA level by at least 75% when used under optimized transfection and detection conditions. This functional guarantee may not apply to all Custom SMARTpool siRNA reagents.

Shipping and Storage

- siRNA reagents are shipped as dry pellets at room temperature (23°C). Under these conditions, they are stable for at least four weeks.
- Upon receipt, siRNA reagents should be stored at -20°C to -80°C. Under these conditions, they are stable for at least one year.

- siRNA should be resuspended in RNase-free solutions. We recommend 1X siRNA buffer (diluted from 5X siRNA buffer – Dharmacon Products Cat. # B-002000-UB-100). RNase-free water (for short-term storage) is also appropriate for resuspension of concentrated stocks (i.e., 20-100 µM). Alternatively, an RNase-free buffer (pH 7.3-7.6) may be used such as PBS (Fisher Cat. # NC9826748)
- Upon resuspension, aliquot the siRNA into small volumes and store at –20°C to –80°C. For best results, limit freeze-thawing of each tube to no more than five events. Under these conditions, the siRNA is stable for at least 6 months.

Handling Precautions

Oligonucleotides are susceptible to enzymatic degradation by nucleases and to chemical degradation by extreme pH and temperature. We recommend wearing gloves and maintaining nuclease-free conditions when handling the oligonucleotides.

Related Products

- It is recommended to include a positive and negative control, such as Dharmacon RNAi Control reagents, in every RNAi experiment. For more information, go to www.thermo.com/DharmaconRNAiControls.
- DharmaFECT™ siRNA Transfection Reagents are available in four formulations that are optimized for transfecting siRNA into a wide variety of cell lines. For more information, go to www.thermo.com/DharmaFECT.

Accompanying Documents

- Basic siRNA resuspension protocol

Supplemental Documents

Go to www.thermo.com/DharmaconProductLiterature to find:

- Basic and cell-line specific transfection protocols
- siRNA Recommended Reading List
- SMARTpool Journal Citations

References

References detailing the development of the SMARTselection algorithm:

- Khvorova, A., A. Reynolds, et al. Cell, 2003. 115(1): p. 209-216.
- Reynolds, A., D. Leake, et al. Nature Biotechnology, 2004. 22(3): p. 326-330.

For additional RNAi references please refer to the siRNA Recommended Reading List, www.thermo.com/DharmaconProductLiterature.

Publication Reference Guide

When referencing the use of Dharmacon siRNA reagents, please include the following information: product name (either siGENOME SMARTpool, ON-TARGETplus SMARTpool, Individual Duplex, or Custom SMARTpool) catalog number, Thermo Fisher Scientific., Lafayette, CO.

Troubleshooting

For technical information or troubleshooting contact Thermo Scientific Genomics Tech Support:

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