PRODUCT INSERT

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# siGENOME™ and ON-TARGET*plus*™ siRNA Reagents

## Product description

- Pooled and individual siRNAs designed using the Dharmacon™ SMARTselection™ algorithm to silence specific target genes
- ON-TARGET*plus* reagents are modified with a patented modification to enhance specificity
- Annealed double-stranded RNA oligonucleotides
- 3'-UU overhangs on both strands
- 5'-Phosphate on antisense strand
- Mass of each strand

## Functional guarantee

Dharmacon siGENOME and ON-TARGET*plus* siRNA reagents (SMARTpool and three of four individual siRNAs) are guaranteed to silence target gene expression by at least 75% at the mRNA level when used under optimal delivery conditions (confirmed using validated positive control and measured at the mRNA level 24 to 48 hours after transfection using 100nM siRNA).

## 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 Cat. #B-002000-UB-100). RNase-free water (for short-term storage) is also appropriate for resuspension of concentrated stocks (such as 20–100 µM). Alternatively, an RNase-free buffer (pH 7.3-7.6) may be used such as PBS.
- 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 six months.

| Mature miRNA | Description | Cat. No. |
|---|---|---|
| siGenome SMARTpool<br>ON-TARGET*plus* SMARTpool™ | One tube containing a mixture of four SMARTselection designed siRNAs targeting one gene<br>Sequence information provided | M-XXXXXX-XX<br>L-XXXXXX-XX |
| siGENOME Set of 4<br>siGENOME Set of 4 Upgrade<br>siGENOME Individual siRNA | Individual SMARTselection-designed siRNA(s) from corresponding SMARTpool reagent<br>Sequence information provided | MQ-XXXXXX-XX<br>MU-XXXXXX-XX<br>D-XXXXXX-XX |
| ON-TARGET*plus* Set of 4<br>ON-TARGET*plus* Set of 4 Upgrade<br>ON-TARGET*plus* Individual siRNA | Individual SMARTselection-designed siRNA(s) from corresponding ON-TARGET*plus* SMARTpool reagent<br>Sequence information provided | LQ-XXXXXX-XX<br>LU-XXXXXX-XX<br>J-XXXXXX-XX |
| Custom SMARTpool | One tube containing 50 nmol of mixture of four SMARTselection-designed siRNAs targeting one gene<br>Sequence information provided | M-XXXXXX-XX |
| 5x siRNA Buffer | 300 mM KCl, 30 mM HEPES-pH 7.5, 1.0 mM $MgCl_2$ | B-002000-UB-100 |

## Related products

- It is recommended to include a positive and negative control, in every RNAi experiment. For more information, go here.
- 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 here.

## Accompanying documents

Basic siRNA resuspension protocol

## Supplemental documents

Go to here 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


1. Khvorova, A., A. Reynolds, *et al. Cell*, 2003. **115**(1): p. 209-216.
2. 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, here.

## Publication reference guide

When referencing the use of Dharmacon siRNA reagents, please include the following information: Product brand name (siGENOME, ON-TARGET*plus*, Accell, Lincode, or custom) product format (SMARTpool or siRNA), Dharmacon catalog number, Horizon Discovery (Dharmacon), Lafayette, CO.


**If you have any questions contact**

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