

# siGENOME™ Control siRNA Kits

## Product Description:

- Double-stranded, chemically synthesized oligonucleotides
- Both sense and antisense strands contain UU for 3'-overhangs
- Antisense strands are modified with 5'-phosphate
- siGLO reagents are labeled with a fluorophore (see Table 3) on the sense strand
- Mass of each strand confirmed by MALDI-TOF mass spectrometry
- Duplex integrity confirmed by non-denaturing polyacrylamide gel electrophoresis

## Shipping and Storage:

- RNAi Control reagents are shipped as dried pellets at room temperature (23 °C). Under these conditions, they are stable for at least four weeks.
- Upon receipt, our RNAi Controls and siGLO reagents should be stored at -20 °C to -80 °C. In addition, store siGLO siRNAs in the dark to avoid exposure to strong light. Under these conditions, the reagents 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 Cat. #B-002000-UB-100). RNase-free water (for short-term storage) is also appropriate for resuspension of concentrated stocks (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 one year.

## 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.

## Accompanying Document:

Basic siRNA resuspension protocol.

## Supplemental Documents:

All supplemental documents are found.

- Basic and cell-line specific transfection protocols.

## Related Products:

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, click [here](#).

## Publication Reference Guide:

When referencing the use of the siRNA reagents listed in this document, please include the following information: Control type, catalog number, GE Healthcare Dharmacon, Inc., Lafayette, CO.

**Table 1. Spectral Properties of siGLO™ Reagents:**

Absorption Max.	Emission Max.	Extinction Coefficient	Excitation Filters
557 nM	570 nM	150,000 M <sup>-1</sup> cm <sup>-1</sup>	Cy3™ or Rhodamine

**Table 2. Accession Numbers for Target Genes of Positive Control siRNA:**

Target Gene	Human	Mouse	Rat
Cyclophilin B	NM_000942	NM_011149	NM_022536
Lamin A/C	NM_005572, NM_170707, NM_170708 (Targets all three isoforms)	NM_019390, NM_001002011 (Targets both isoforms)	NM_001002016



**Table 3. siGENOME Control siRNA Reagents**

Product	Description*	Cat. #
siGENOME Lamin A/C control siRNA • human/mouse/rat	Positive silencing control for guaranteed silencing of Lamin A/C mRNA in human, mouse and rat cells. MW ~ 13,400 g/mol	D-001050-01-XX
siGENOME Cyclophilin B Control siRNA • human/mouse/rat	Positive silencing control for guaranteed silencing of Cyclophilin B mRNA in human, mouse and rat cells. MW ~ 13,400 g/mol	D-001036-01-XX
siGENOME Non-targeting siRNA #1 <sup>^</sup>	Negative control siRNA with at least 4 mismatches to any human, mouse or rat gene. Microarray tested. <sup>^</sup> MW ~ 13,400 g/mol	D-001210-01-XX
siGENOME Non-targeting siRNA #2 <sup>^</sup>	Negative control siRNA with at least 4 mismatches to any human, mouse or rat gene. Microarray tested. <sup>^</sup> MW ~ 13,400 g/mol	D-001210-02-XX
siGENOME Non-targeting siRNA pool #1 <sup>^</sup>	Pool of 4 non-targeting siRNAs. Useful control for experiments with SMARTpool reagents. <sup>^</sup> MW ~ 13,400 g/mol	D-001206-13-XX
siGENOME RISC-Free Control siRNA	Non-targeting siRNA with impaired ability for RISC interaction.	D-001220-01-XX
siSTABLE™ Non-Targeting siRNA # 1	Negative control siRNA (chemically modified for increased stability) with at least 4 mismatches to any human, mouse, or rat gene. Microarray tested. <sup>^</sup> MW 13,000 g/mol	D-001700-01-XX
siGENOME Tox Transfection Control	Transfection efficiency control for optimizing relative siRNA uptake.	D-001500-01-XX
siGLO Cyclophilin B Control siRNA • human/mouse/rat	Dual purpose silencing control targeting Cyclophilin B with fluorescent label for human, mouse and rat cells. MW ~ 14,000 g/mol	D-001610-01-XX
siGLO Lamin A/C Control siRNA • human/mouse/rat	Dual purpose silencing control targeting Lamin A/C with fluorescent label for human, mouse and rat cells. MW ~ 14,100 g/mol	D-001620-01-XX
siGLO Lamin A/C Control siRNA • human • mouse • rat	Dual purpose silencing control targeting Lamin A/C with fluorescent label for human cells. MW ~ 14,100 g/mol	D-001620-02-XX
	Dual purpose silencing control targeting Lamin A/C with fluorescent label for mouse cells. MW ~ 14,100 g/mol	D-001620-03-XX
	Dual purpose silencing control targeting Lamin A/C with fluorescent label for rat cells. MW ~ 14,100 g/mol	D-001620-04-XX
siGLO RISC-Free Control siRNA	Non-targeting siRNA with fluorescent label and impaired ability for RISC interaction	D-001600-01-XX

<sup>^</sup>When provided, sequence is of the sense strand.

<sup>^</sup>Non-Targeting siRNA #1 reduces EGFR mRNA by ~ 50% (Accession #NM\_005228), Non-Targeting siRNA #2 reduces firefly luciferase mRNA by ~ 75% (Accession #U47296), and the Non-Targeting Pool includes both Non-Targeting siRNAs. #1 and #2 and targets both genes as noted above.

XX=05,20, or 50 for 5, 20, and 50 nmol amounts

**Table 4. siGENOME Control siRNA Kits\*:**

Product	Cat. #
<b>siGENOME Basic Kit – Human , Mouse, and Rat</b>	
siGENOME Lamin A/C control siRNA (human/mouse/rat) siGENOME Cyclophilin B control siRNA (human/mouse/rat) siGENOME Non-targeting siRNA #1 <sup>^</sup> siGENOME Non-targeting siRNA #2 <sup>^</sup> siGENOME RISC-Free control siRNA siSTABLE Non-targeting siRNA #1 siGENOME Non-targeting Pool #1	K-002800-C4-01
<b>siGENOME Complete Kit – Human , Mouse, and Rat (Basic Kit plus the following siRNAs)</b>	
siGENOME Tox Transfection Control siGLO Lamin A/C Control siRNA (human/mouse/rat) siGLO Cyclophilin B Control siRNA (human/mouse/rat) siGLO RISC-FREE Control siRNA	K-002800-C2-01
<b>siGENOME Complete Kit – Human (Basic Kit plus the following siRNAs)</b>	
siGENOME Tox Transfection Control siGLO Lamin A/C Control siRNA (human) siGLO Cyclophilin B Control siRNA (human/mouse/rat) siGLO RISC-FREE Control siRNA	K-002800-C2-02
<b>siGENOME Complete Kit – Mouse (Basic Kit plus the following siRNAs)</b>	
siGENOME Tox Transfection Control siGLO Lamin A/C Control siRNA (mouse) siGLO Cyclophilin B Control siRNA (human/mouse/rat) siGLO RISC-FREE Control siRNA	K-002800-C2-03
<b>siGENOME Complete Kit – Rat (Basic Kit plus the following siRNAs)</b>	
siGENOME Tox Transfection Control siGLO Lamin A/C Control siRNA (rat) siGLO Cyclophilin B Control siRNA (human/mouse/rat) siGLO RISC-FREE Control siRNA	K-002800-C2-04

<sup>^</sup>Non-targeting siRNA #1 reduces EGFR mRNA by ~ 50% (Accession #NM\_005228), Non-targeting siRNA #2 targets firefly luciferase (Accession #U47296), and Non-targeting Pool #1 includes both Non-targeting siRNAs #1 and #2 and targets both genes as noted above.

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