

Thermo Scientific Dharmacon[®]

Accell[™] RNAi Control Reagents

PLEASE READ: Accell siRNA is specially modified for use without a transfection reagent and works at a higher concentration than conventional siRNA with minimal disruption of the expression profile. When used with Accell siRNA delivery media, little to no delivery optimization is required.

Product Description

- Chemically modified for stability, target specificity, and uptake by cells without a transfection reagent
- Pooled and individual positive control siRNAs designed to silence specific target genes (Table 1)
- Pooled and individual negative control siRNAs designed to not target any genes in human, mouse, or rat (Table 3)
- Accell Green and Red Control siRNAs are labeled with a fluorophore (Table 2)
- Annealed double-stranded RNA oligonucleotides
- 3'-UU overhangs
- 5'-Phosphate on antisense strand
- Mass of each strand confirmed by MALDI-TOF mass spectrometry
- Duplex integrity confirmed by non-denaturing polyacrylamide gel electrophoresis
- The approximate molecular weight of all controls is 13,400 g/mol

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. In addition, store dye-labeled siRNAs in the dark to avoid exposure to strong light. 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 mM). 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 9 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

Accell siRNA Delivery media is required for use with every Accell siRNA product, and has been validated with over 40 cell types to date. For more information on Accell siRNA Delivery media, go to www.thermo.com/dharmacon, and search for catalog #B-005000-100.

Accompanying Documents

- Accell Delivery Protocol

Publication Reference Guide

When referencing the use of Dharmacon siRNA reagents, please include the following information: product name (e.g. Accell Cyclophilin B Control siRNA) catalog number, Thermo Fisher Scientific, Lafayette, CO.

Table 1. Accession Numbers for Target Genes of Positive Control siRNAs

Target Gene	Human	Mouse	Rat
Cyclophilin B	NM_000942	NM_011149	NM_022536
GAPD	NM_002046	NM_008084	XM_575242

Table 2. Spectral Properties of Accell Green and Red Control siRNAs

Accell Red & Green Control siRNAs	Fluorophore Absorption/ Emission Max	Extinction Coefficient	Filter
Accell Green	6-FAM (494 nm /520 nm)	75,000 M ⁻¹ cm ⁻¹	FITC
Accell Red	DY-547 (557 nm /570 nm)	150,000 M ⁻¹ cm ⁻¹	Cy TM 3, Rhodamine and PE

Table 3. Accell RNAi Negative Controls

Product	Description	Catalog #
Accell Non-targeting siRNA #1-4	Negative control siRNA with at least 4 mismatches to any human, mouse, or rat gene. Microarray tested.	D-001910-01-XX D-001910-02-XX D-001910-03-XX D-001910-04-XX
Accell Non-targeting Pool	Negative control pool of 4 siRNA with at least 4 mismatches to any human, mouse, or rat gene. Microarray tested.	D-001910-10-XX
Accell Green Non-targeting siRNA	Fluorescently-labeled negative control siRNA #1 with at least 4 mismatches to any human, mouse, or rat gene. Microarray tested.	D-001950-01-XX
Accell Red Non-targeting siRNA		D-001960-01-XX

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

Table 4. Accell RNAi Positive Controls

Product	Description	Species	Catalog #
Accell Cyclophilin B Control siRNA	Positive silencing control for guaranteed silencing of Cyclophilin B mRNA.	H	D-001920-01-XX
		M	D-001920-02-XX
		R	D-001920-03-XX
Accell Cyclophilin B Control Pool	Pool of 4 positive silencing control siRNA for guaranteed silencing of Cyclophilin B mRNA.	H	D-001920-10-XX
		M	D-001920-20-XX
		R	D-001920-30-XX
Accell GAPD Control siRNA	Positive silencing control for guaranteed silencing of GAPD (GAPDH) mRNA.	H	D-001930-01-XX
		M	D-001930-02-XX
		R	D-001930-03-XX
Accell GAPD Control Pool	Pool of 4 positive silencing control siRNA for guaranteed silencing of GAPD (GAPDH) mRNA.	H	D-001930-10-XX
		M	D-001930-20-XX
		R	D-001930-30-XX
Accell eGFP Control siRNA	Positive control siRNA silencing control for guaranteed silencing of eGFP mRNA.	N/A	D-001940-01-XX
Accell eGFP Control Pool	Pool of 4 positive control siRNA silencing control for guaranteed silencing of eGFP mRNA.	N/A	D-001940-10-XX

Product	Description	Species	Catalog #
Accell Green Cyclophilin B Control siRNA	Fluorescently-labeled positive silencing control for guaranteed silencing of Cyclophilin B mRNA.	H	D-001970-01-XX
		M	D-001970-02-XX
		R	D-001970-03-XX
Accell Red Cyclophilin B Control siRNA	Fluorescently-labeled positive silencing control for guaranteed silencing of Cyclophilin B mRNA.	H	D-001975-01-XX
		M	D-001975-02-XX
		R	D-001975-03-XX
XX=05, 20, or 50 for 5, 20, and 50 nmol amounts.			

Contact Information

For technical questions regarding the use of siRNA reagents, please contact Dharmacon Products Technical Support at:

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Please contact your appropriate
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www.thermo.com/dharmacondistributors

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