

Silencer® Select Negative Control #1 siRNA

Store at or below -20°C .

Catalog #:	4390843
Amount:	5 nmol
Appearance:	Powder
Format:	Annealed
Additional Material(s) Included:	1.75 mL Nuclease-free Water
Storage Conditions:	Store at or below -20°C . Do not store in a frost-free freezer. (Dried oligonucleotides are shipped at ambient temperature.)

USER INFORMATION

Product Description:

Ambion® *Silencer*® Select siRNAs are designed using an all-new algorithm that was developed utilizing the latest in machine-learning methods. These next-generation siRNAs exhibit up to 100-fold higher silencing potency than siRNAs from other leading siRNA manufacturers. Off-target activity (assayed by microarray analysis) is blocked by up to 90% because *Silencer* Select siRNAs can be used at 5- to 20-fold lower concentrations, are bioinformatically screened using the latest knowledge about miRNA seed regions and toxic sequence motifs, and incorporate strategic chemical modifications. As a result, *Silencer* Select siRNAs provide unrivalled specificity and cleaner, more consistent phenotypic data.

Silencer Select Negative Controls provide the ideal baseline for comparing *Silencer* Select siRNA-treated samples. *Silencer* Select Negative Controls were bioinformatically designed with the latest information about miRNA seed regions and sequence alignment algorithms to minimize interactions with any transcript in the transcriptomes of human, mouse, and rat. In addition they incorporate *Silencer* Select chemical modifications for reduced off-target activity and for experimental compatibility with *Silencer* Select siRNAs. The sense and antisense siRNA strands are chemically synthesized, HPLC purified, and then annealed. The siRNA is shipped in dried form, with Nuclease-free Water provided for resuspension.

Silencer Select Negative Controls have been validated to have minimal effects on gene expression profiles using microarray analysis. In addition they have been tested in multi-parametric cell-based assays and shown to have no significant effect on cell proliferation, viability, or morphology in the cell lines tested.

Transfect *Silencer* Select Negative Controls using the same methodology utilized for *Silencer* Select positive controls [*Silencer* Select GAPDH siRNA (Hs, Mm, Rn); Cat #4390849] or for your experimental siRNAs.

Handling Instructions:

RNA oligonucleotides are susceptible to degradation by exogenous ribonucleases introduced during handling. Wear gloves when handling this product. Use RNase-free reagents, tubes, and barrier pipette tips. Upon receipt, your siRNAs may be safely stored in a non-frost-free freezer at or below -20°C (dried oligonucleotides are shipped at ambient temperature).

Resuspension of siRNA

Briefly centrifuge the tube to ensure that the dried siRNA is at the bottom of the tube. Resuspend siRNA at a convenient concentration. For example, resuspend 40 nmol of siRNA in 800 μL of the Nuclease-free Water provided for a final concentration of 50 μM .

An online calculator for suspension of dry oligonucleotides is available at www.ambion.com/techlib/append/oligo_dilution.html

Once reconstituted in Nuclease-free Water, the siRNA is ready to transfect and can be used at your choice of final concentration.

Store the resuspended siRNA at or below -20°C . **Do not store in a frost-free freezer.**

Additional Information:

For additional information on siRNA procedures and protocols, visit the siRNA resources pages at www.ambion.com/techlib/resources/RNAi

RELATED PRODUCTS

Silencer® Select Pre-designed and Validated siRNAsCat #Various (see www.ambion.com/geneassist)

An all-new class of modified siRNAs with unsurpassed efficacy, potency and specificity. Search the GeneAssist™ Atlas at www.ambion.com/geneassist to find guaranteed-to-silence siRNAs to your gene of interest.

siPORT™ NeoFX™ Transfection Agent

Cat #AM4510 and AM4511

A versatile lipid-based agent for efficient and reproducible transfection of adherent cells while subculturing, without increased cytotoxicity.

TaqMan® Gene Expression Assayswww.allgenes.com

A comprehensive collection of over 700,000 probe and primer sets for quantitative gene expression analysis using real-time PCR.

QUALITY CONTROL

Identity:	The mass of a sample of each single-stranded RNA oligonucleotide is analyzed using MALDI-TOF mass spectrometry and compared to the calculated mass.
Purity:	Analytical HPLC of a sample of the final purified single-stranded RNA oligonucleotides is used to confirm ≥95% purity.
Annealing:	A sample of the annealed siRNA is analyzed by nondenaturing gel electrophoresis.

OTHER INFORMATION

Material Safety Data Sheets: Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: www.ambion.com/techlib/msds. Alternatively, e-mail your request to MSDS_Inquiry_CCRM@appliedbiosystems.com. Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1–2 weeks for processing.)

Warranty and Liability: *For research use only. Not for use in diagnostic procedures.*

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