

Ambion® *In Vivo* Negative Control #1 siRNA

Store at or below –20°C.
Do not store in a frost-free freezer.

Catalog # (P/N):	4457287
Amount:	5 nmol
Appearance:	Powder
Format:	Annealed
Purity:	HPLC purified
Storage Conditions:	Store at or below –20 °C. Do not store in a frost-free freezer. (Dried oligonucleotides are shipped at ambient temperature.)
Safety Information:	Read the Safety Data Sheet, and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

USER INFORMATION

Product Description:	<p>Ambion® <i>In Vivo</i> Negative Control #1 siRNA provides a negative control for experiments involving transfection of mammalian cell lines with Ambion <i>In Vivo</i> siRNAs.</p> <p>Ambion <i>In Vivo</i> siRNAs are designed using the <i>Silencer</i>® Select siRNA algorithm. This novel algorithm was developed utilizing advanced machine-learning methods and bioinformatic screening using the latest knowledge about miRNA seed regions and toxic sequence motifs. Ambion <i>In Vivo</i> siRNAs incorporate additional chemical modifications for superior serum stability (half life >5 hours at 37°C in 90% mouse serum) with in vivo applications. Ambion <i>In Vivo</i> siRNAs are non-toxic and non-immunogenic in vitro (peripheral blood mononuclear cells; PBMC) and in vivo (mouse). In cell-based assays, Ambion <i>In Vivo</i> siRNAs exhibit potency and specificity equivalent to <i>Silencer</i> Select siRNAs.</p> <p>When preparing for experiments requiring siRNA delivery to animals, it is useful to first screen candidate siRNAs in cell-based assays for their ability to induce maximal knockdown at minimal concentration. Ambion® <i>In Vivo</i> Negative Control #1 siRNA provides the ideal baseline for transfection of your cell line. It has the same sequence as <i>Silencer</i>® Select Negative Control #1 siRNA, which was 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. It incorporates the Ambion <i>In Vivo</i> siRNA chemical modifications for superior serum stability. In cell-based assays, this siRNA has been shown to have no significant effect on cell proliferation, viability, or morphology, and minimal effects on gene expression profiles (microarray analysis).</p> <p>Transfect Ambion <i>In Vivo</i> Negative Control #1 siRNA using the same methodology as for your positive control or experimental Ambion <i>In Vivo</i> siRNAs.</p>
Handling Instructions:	<p>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).</p> <p>Resuspension of siRNA</p> <p>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 5 nmol of siRNA in 100 µL of the Nuclease-free Water provided for a final concentration of 50 µM.</p> <p>An online calculator for suspension of dry oligonucleotides is available at www4.appliedbiosystems.com/techlib/append/oligo_dilution.html</p> <p>Once reconstituted in Nuclease-free Water, the siRNA is ready to transfect and can be used at your choice of final concentration.</p> <p>Store the resuspended siRNA at or below –20°C. After resuspension, siRNA stock solutions at concentrations ≥2 µM can undergo up to 50 freeze-thaw cycles without significant degradation. However, storage in a frost-free freezer is not recommended. For long-term storage, RNA oligonucleotides may be stored at or below –70°C.</p>

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 $\geq 90\%$ purity.
Annealing:	A sample of the annealed siRNA is analyzed by nondenaturing gel electrophoresis.

OTHER INFORMATION

Safety Data Sheets: Safety Data Sheets (SDSs; previously known as MSDSs) for any chemical product supplied by Applied Biosystems or Ambion are available 24 hours a day. At www.appliedbiosystems.com, select **Support**, then **SDS/MSDS**. Search by chemical name, product name, product part number, or SDS/MSDS part number. Right-click to print or download the SDS of interest. At www.ambion.com, go to the web catalog page for the product of interest. Select **SDS/MSDS**, then right-click to print or download. Or, e-mail (MSDS_Inquiry_CCRM@lifetech.com), telephone (650-554-2756; USA), or fax (650-554-2252; USA) your request, specifying the catalog or part number(s) and the name of the product(s). We will e-mail the associated SDSs unless you request fax or postal delivery. Requests for postal delivery require 1-2 weeks for processing.

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