POLR1B siRNA – DNA-Directed RNA Polymerase I Subunit RPA2 (Rat)

PRODUCT OVERVIEW

Product Name	POLR1B, siRNA
Full Product Name	POLR1B siRNA (Rat)
Product Gene Name	POLR1B sirna
Product Synonym Names	RPA2; RPO1-2; DNA-directed RNA polymerase I subunit RPA2; RNA polymerase I subunit 2; A127; RPA135
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	POLR1B siRNA (Rat) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	127,721 Da
3D Structure	ModBase 3D Structure for O54888
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat POLR1B gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for POLR1B sirna	RNA Interference (RNAi)
Related Product Information for POLR1B sirna	MBS8208799 is an siRNA targeting POLR1B. Also known as POLR1B siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit POLR1B expression using RNA interference
Other Notes	Small volumes of POLR1B sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for POLR1B. It may not necessarily be applicable to this product.

NCBI GI #	13929088

NCBI GeneID	83582
NCBI Accession #	NP_113961.1
UniProt Primary Accession #	O54888
UniProt Related Accession #	O54888
GenBank Nucleotide #	NM_031773.1
NCBI Official Full Name	DNA-directed RNA polymerase I subunit RPA2
NCBI Official Synonym Full Names	polymerase (RNA) I polypeptide B
NCBI Official Symbol	Polr1b
NCBI Official Synonym Symbols	RPA2; Rpo1-2
UniProt Protein Name	DNA-directed RNA polymerase I subunit RPA2
UniProt Synonym Protein Names	A127; RPA135
UniProt Gene Name	Polr1b
UniProt Synonym Gene Names	Rpa2; Rpo1-2; RNA polymerase I subunit 2
UniProt Entry Name	RPA2_RAT
NCBI Protein Information	DNA-directed RNA polymerase I subunit RPA2
NCBI Summary for POLR1B	mouse homolog is the second largest subunit of RNA polymerase I [RGD, Feb 2006]
UniProt Comments for POLR1B	POLR1B: a subunit of RNA polymerase I (Pol I), a DNA-dependent RNA polymerase that synthesizes ribosomal RNA precursors. Proposed to contribute to the polymerase catalytic activity and forms the polymerase active center together with the largest subunit. Pol I is composed of mobile elements and RPA2 is part of the core element with the central large cleft and probably a clamp element that moves to open and close the clef. Two alternatively spliced human isoforms have been described. Protein type: Transferase; Nucleotide Metabolism - pyrimidine; Nucleolus; EC 2.7.7.6; Nucleotide Metabolism - purine; Transcription initiation complex Cellular Component: cytoplasm; nucleolus; nucleus; DNA-directed RNA polymerase I complex Molecular Function: DNA binding; ribonucleoside binding; DNA-directed RNA polymerase activity; metal ion binding Biological Process: nucleologenesis; transcription from RNA polymerase I promoter; embryo implantation; rRNA transcription
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