UNC5B siRNA – Netrin Receptor UNC5B (Rat)

PRODUCT OVERVIEW

Product Name	UNC5B, siRNA
Full Product Name	UNC5B siRNA (Rat)
Product Gene Name	UNC5B sirna
Product Synonym Names	UNC5H2; Netrin receptor UNC5B; Protein unc-5 homolog 2; Protein unc-5 homolog B
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	UNC5B 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	103,521 Da
3D Structure	ModBase 3D Structure for O08722
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 UNC5B 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 UNC5B sirna	RNA Interference (RNAi)
Related Product Information for UNC5B sirna	MBS8218515 is an siRNA targeting UNC5B. Also known as UNC5B siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit UNC5B expression using RNA interference
Other Notes	Small volumes of UNC5B 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 UNC5B. It may not necessarily be applicable to this product.

NCBI GI #	11559982

NCBI GeneID	60630
NCBI Accession #	NP_071543.1
UniProt Primary Accession #	O08722
UniProt Related Accession #	O08722
GenBank Nucleotide #	NM_022207.1
NCBI Official Full Name	netrin receptor UNC5B
NCBI Official Synonym Full Names	unc-5 netrin receptor B
NCBI Official Symbol	Unc5b
NCBI Official Synonym Symbols	Unc5h2
UniProt Protein Name	Netrin receptor UNC5B
UniProt Synonym Protein Names	Protein unc-5 homolog 2; Protein unc-5 homolog B
Protein Family	Netrin receptor
UniProt Gene Name	Unc5b
UniProt Synonym Gene Names	Unc5h2
UniProt Entry Name	UNC5B_RAT
NCBI Protein Information	netrin receptor UNC5B
NCBI Summary for UNC5B	a netrin receptor involved in neuronal migration [RGD, Feb 2006]
UniProt Comments for UNC5B	UNC5B: Receptor for netrin required for axon guidance. Mediates axon repulsion of neuronal growth cones in the developing nervous system upon ligand binding. Axon repulsion in growth cones may be caused by its association with DCC that may trigger signaling for repulsion. It also acts as a dependence receptor required for apoptosis induction when not associated with netrin ligand. Mediates apoptosis by activating DAPK1. In the absence of NTN1, activates DAPK1 by reducing its autoinhibitory phosphorylation at Ser-308 thereby increasing its catalytic activity. Belongs to the unc-5 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Receptor, misc.; Membrane protein, integral Cellular Component: integral to membrane; plasma membrane; lipid raft Molecular Function: protein binding; netrin receptor activity Biological Process: positive regulation of phosphoinositide 3-kinase cascade; axon guidance; apoptosis; negative regulation of neuron apoptosis; signal transduction; anterior/posterior axon guidance
Research Articles on UNC5B	**1.** Treadmill exercise has beneficial effects via involvement of netrin-1 and its receptors DCC and Unc5B in neuronal and vascular activities in brain-ischemic rats.
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