NETO1 siRNA – Neuropilin and Tolloid-Like Protein 1 Isoform 3 (Human)

PRODUCT OVERVIEW

Product Name	NETO1, siRNA
Full Product Name	NETO1 siRNA (Human)
Product Gene Name	NETO1 sirna
Product Synonym Names	BTCL1; Neuropilin and tolloid-like protein 1; Brain-specific transmembrane protein containing 2 CUB and 1 LDL-receptor class A domains protein 1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NETO1 siRNA (Human) 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	60,060 Da
OMIM	607973
3D Structure	ModBase 3D Structure for Q8TDF5
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 human NETO1 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 NETO1 sirna	RNA Interference (RNAi)
Related Product Information for NETO1 sirna	MBS8223715 is an siRNA targeting NETO1. Also known as NETO1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NETO1 expression using RNA interference
Other Notes	Small volumes of NETO1 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 NETO1. It may not necessarily be applicable to this product.

NCBI GI #	319918840
NCBI GeneID	81832
NCBI Accession #	NP_001188394.1
UniProt Primary Accession #	Q8TDF5
UniProt Secondary Accession #	Q86W85; Q8ND78; Q8TDF4
UniProt Related Accession #	Q8TDF5
GenBank Nucleotide #	NM_001201465.1
NCBI Official Full Name	neuropilin and tolloid-like protein 1 isoform 3
NCBI Official Synonym Full Names	neuropilin (NRP) and tolloid (TLL)-like 1
NCBI Official Symbol	NETO1
NCBI Official Synonym Symbols	BCTL1; BTCL1
UniProt Protein Name	Neuropilin and tolloid-like protein 1
UniProt Synonym Protein Names	Brain-specific transmembrane protein containing 2 CUB and 1 LDL-receptor class A domains protein 1
Protein Family	Neuropilin and tolloid-like protein
UniProt Gene Name	NETO1
UniProt Synonym Gene Names	BTCL1
UniProt Entry Name	NETO1_HUMAN
NCBI Protein Information	neuropilin and tolloid-like protein 1
NCBI Summary for NETO1	This gene encodes a predicted transmembrane protein containing two extracellular CUB domains followed by a low-density lipoprotein class A (LDLa) domain. A similar gene in mice encodes a protein that plays a critical role in spatial learning and memory by regulating the function of synaptic N-methyl-D-aspartic acid receptor complexes in the hippocampus. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Jan 2011]
UniProt Comments for NETO1	NETO1: a transmembrane protein and component of the N-methyl-D-aspartate receptor (NMDAR) complex. Required to maintain the normal level of NMDAR subunits at synapses. The NMDAR complex is a major excitatory ligand-gated ion channel in the central nervous system and a major mediator of synaptic plasticity. Important in the development and/or maintenance of neuronal circuitry. Neto1-deficient mice have a dramatic decrease in the number of NMDA receptors at synapses, impairing learning and synaptic plasticity. Three isoforms of the human protein are produced by alternative splicing. Isoforms 1 and 2 are retina-specific whereas isoform 3 is found in retina as well as at lower levels in adult and fetal brain. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 18q22.2 Cellular Component: postsynaptic membrane; kainate selective glutamate receptor complex; postsynaptic density; extracellular region; excitatory synapse; cell junction Molecular Function: ionotropic glutamate receptor binding Biological Process: regulation of long-term neuronal synaptic plasticity; visual learning; memory
Research Articles on NETO1	**1.** Neto1 is concluded to be a component of amyloid precursor protein /NMDA receptor trafficking complexes
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