TLL1 siRNA – Tolloid-Like Protein 1 Isoform 2 (Human)

PRODUCT OVERVIEW

Product Name	TLL1, siRNA
Full Product Name	TLL1 siRNA (Human)
Product Gene Name	TLL1 sirna
Product Synonym Names	TLL; Tolloid-like protein 1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	TLL1 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	44,186 Da
OMIM	606742
3D Structure	ModBase 3D Structure for O43897
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 TLL1 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 TLL1 sirna	RNA Interference (RNAi)
Related Product Information for TLL1 sirna	MBS8219925 is an siRNA targeting TLL1. Also known as TLL1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit TLL1 expression using RNA interference
Other Notes	Small volumes of TLL1 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 TLL1. It may not necessarily be applicable to this product.

NCBI GI #	325652110
NCBI GeneID	7092
NCBI Accession #	NP_001191689.1
UniProt Primary Accession #	O43897
UniProt Secondary Accession #	Q96AN3; Q9NQS4; B2RMU2
UniProt Related Accession #	O43897
GenBank Nucleotide #	NM_001204760.1
NCBI Official Full Name	tolloid-like protein 1 isoform 2
NCBI Official Synonym Full Names	tolloid-like 1
NCBI Official Symbol	TLL1
NCBI Official Synonym Symbols	TLL; ASD6
UniProt Protein Name	Tolloid-like protein 1
Protein Family	Dorsal-ventral patterning tolloid-like protein
UniProt Gene Name	TLL1
UniProt Synonym Gene Names	TLL
UniProt Entry Name	TLL1_HUMAN
NCBI Protein Information	tolloid-like protein 1
NCBI Summary for TLL1	This gene encodes an astacin-like, zinc-dependent, metalloprotease that belongs to the peptidase M12A family. This protease processes procollagen C-propeptides, such as chordin, pro-biglycan and pro-lysyl oxidase. Studies in mice suggest that this gene plays multiple roles in the development of mammalian heart, and is essential for the formation of the interventricular septum. Allelic variants of this gene are associated with atrial septal defect type 6. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011]
UniProt Comments for TLL1	TLL1: Protease which processes procollagen C-propeptides, such as chordin, pro-biglycan and pro-lysyl oxidase. Required for the embryonic development. Predominant protease, which in the development, influences dorsal-ventral patterning and skeletogenesis. Defects in TLL1 are the cause of atrial septal defect type 6 (ASD6). A congenital heart malformation characterized by incomplete closure of the wall between the atria resulting in blood flow from the left to the right atria. Belongs to the peptidase M12A family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.4.24.-; Secreted, signal peptide; Secreted; Protease Chromosomal Location of Human Ortholog: 4q32-q33 Cellular Component: extracellular region Molecular Function: collagen binding; zinc ion binding; metalloendopeptidase activity; calcium ion binding Biological Process: extracellular matrix disassembly; extracellular matrix organization and biogenesis; proteolysis; cell differentiation; skeletal development Disease: Atrial Septal Defect 6
Research Articles on TLL1	**1.** This study identified TLL1 as a new susceptibility gene for PTSD.
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