THNSL2 siRNA – Threonine Synthase-Like 2 Isoform 2 (Human)

PRODUCT OVERVIEW

Product Name	THNSL2, siRNA
Full Product Name	THNSL2 siRNA (Human)
Product Gene Name	THNSL2 sirna
Product Synonym Names	Threonine synthase-like 2; TSH2; Secreted osteoclastogenic factor of activated T-cells; SOFAT
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	THNSL2 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	27,414 Da
OMIM	611261
3D Structure	ModBase 3D Structure for Q86YJ6
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 THNSL2 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 THNSL2 sirna	RNA Interference (RNAi)
Related Product Information for THNSL2 sirna	MBS8226666 is an siRNA targeting THNSL2. Also known as THNSL2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit THNSL2 expression using RNA interference
Other Notes	Small volumes of THNSL2 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 THNSL2. It may not necessarily be applicable to this product.

NCBI GI #	347658949
NCBI GeneID	55258
NCBI Accession #	NP_001231605.1
UniProt Primary Accession #	Q86YJ6
UniProt Secondary Accession #	Q6P2M7; Q6PI27; Q9NV54; B3KTB1; B5MDX8; B7WPF8; D9ZZB8
UniProt Related Accession #	Q86YJ6
GenBank Nucleotide #	NM_001244676.1
NCBI Official Full Name	threonine synthase-like 2 isoform 2
NCBI Official Synonym Full Names	threonine synthase-like 2 (S. cerevisiae)
NCBI Official Symbol	THNSL2
NCBI Official Synonym Symbols	THS2; TSH2; SOFAT
UniProt Protein Name	Threonine synthase-like 2
UniProt Synonym Protein Names	Secreted osteoclastogenic factor of activated T-cells; SOFAT
Protein Family	Threonine synthase
UniProt Gene Name	THNSL2
UniProt Synonym Gene Names	TSH2; SOFAT
UniProt Entry Name	THNS2_HUMAN
NCBI Protein Information	threonine synthase-like 2
NCBI Summary for THNSL2	This gene encodes a threonine synthase-like protein. A similar enzyme in mouse can catalyze the degradation of O-phospho-homoserine to a-ketobutyrate, phosphate, and ammonia. This protein also has phospho-lyase activity on both gamma and beta phosphorylated substrates. In mouse an alternatively spliced form of this protein has been shown to act as a cytokine and can induce the production of the inflammatory cytokine IL6 in osteoblasts. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2011]
UniProt Comments for THNSL2	THNSL2: Isoform 1: Acts as a catabolic phospho-lyase on both gamma- and beta-phosphorylated substrates. Degrades O-phospho- threonine (PThr) to alpha-ketobutyrate, ammonia and phosphate. Belongs to the threonine synthase family. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Lyase; EC 4.2.3.- Chromosomal Location of Human Ortholog: 2p11.2 Cellular Component: extracellular space; cytoplasm Molecular Function: cytokine activity; threonine synthase activity; pyridoxal phosphate binding Biological Process: dephosphorylation; 2-oxobutyrate biosynthetic process; threonine biosynthetic process; serine family amino acid catabolic process
Research Articles on THNSL2	**1.** The present study demonstrated that SOFAT may play an important role in periodontitis.
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