SYTL2 siRNA – Synaptotagmin-Like Protein 2 Isoform G (Human)

PRODUCT OVERVIEW

Product Name	SYTL2, siRNA
Full Product Name	SYTL2 siRNA (Human)
Product Gene Name	SYTL2 sirna
Product Synonym Names	KIAA1597; SGA72M; SLP2; SLP2A; Synaptotagmin-like protein 2; Breast cancer-associated antigen SGA-72M; Exophilin-4
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SYTL2 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	84,651 Da
OMIM	612880
3D Structure	ModBase 3D Structure for Q9HCH5
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 SYTL2 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 SYTL2 sirna	RNA Interference (RNAi)
Related Product Information for SYTL2 sirna	MBS8219611 is an siRNA targeting SYTL2. Also known as SYTL2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit SYTL2 expression using RNA interference
Other Notes	Small volumes of SYTL2 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 SYTL2. It may not necessarily be applicable to this product.

NCBI GI #	244790013
NCBI GeneID	54843
NCBI Accession #	NP_001156423.1
UniProt Primary Accession #	Q9HCH5
UniProt Secondary Accession #	Q2YDA7; Q6TV07; Q6ZN59; Q6ZVC5; B3KRS3; B4DJT5; B4DKW3; B4DQ26; B7SA85; B7ZLX6; B7ZLX7
UniProt Related Accession #	Q9HCH5
GenBank Nucleotide #	NM_001162951.2
NCBI Official Full Name	synaptotagmin-like protein 2 isoform g
NCBI Official Synonym Full Names	synaptotagmin-like 2
NCBI Official Symbol	SYTL2
NCBI Official Synonym Symbols	EXO4; SLP2; SLP2A; SGA72M; CHR11SYT; PPP1R151
UniProt Protein Name	Synaptotagmin-like protein 2
UniProt Synonym Protein Names	Breast cancer-associated antigen SGA-72M; Exophilin-4
Protein Family	Synaptotagmin-like protein
UniProt Gene Name	SYTL2
UniProt Synonym Gene Names	KIAA1597; SGA72M; SLP2; SLP2A
UniProt Entry Name	SYTL2_HUMAN
NCBI Protein Information	synaptotagmin-like protein 2
NCBI Summary for SYTL2	The protein encoded by this gene is a synaptotagmin-like protein (SLP) that belongs to a C2 domain-containing protein family. The SLP homology domain (SHD) of this protein has been shown to specifically bind the GTP-bound form of Ras-related protein Rab-27A (RAB27A). This protein plays a role in RAB27A-dependent vesicle trafficking and controls melanosome distribution in the cell periphery. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Jun 2009]
UniProt Comments for SYTL2	SYTL2: Isoform 1 acts as a RAB27A effector protein and plays a role in cytotoxic granule exocytosis in lymphocytes. It is required for cytotoxic granule docking at the immunologic synapse. Isoform 4 binds phosphatidylserine (PS) and phosphatidylinositol- 4,5-bisphosphate (PIP2) and promotes the recruitment of glucagon- containing granules to the cell membrane in pancreatic alpha cells. Binding to PS is inhibited by Ca(2+) while binding to PIP2 is Ca(2+) insensitive. 12 isoforms of the human protein are produced by alternative splicing. Protein type: GAPs; GAPs, Rab; Motility/polarity/chemotaxis; Lipid-binding; Vesicle Chromosomal Location of Human Ortholog: 11q14 Cellular Component: nucleoplasm; extrinsic to plasma membrane; Golgi apparatus; membrane; cytoplasm; melanosome; plasma membrane; nucleus Molecular Function: phosphatidylinositol-4,5-bisphosphate binding; protein binding; phosphatidylserine binding; neurexin binding; Rab GTPase binding; phosphatase binding Biological Process: vesicle-mediated transport; intracellular protein transport; exocytosis; vesicle docking during exocytosis
Research Articles on SYTL2	**1.** SLP2 may play an important role in tumorigenesis of esophageal squamous cell carcinoma.
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