LPIN2 siRNA – Phosphatidate Phosphatase LPIN2 (Human)

PRODUCT OVERVIEW

Product Name	LPIN2, siRNA
Full Product Name	LPIN2 siRNA (Human)
Product Gene Name	LPIN2 sirna
Product Synonym Names	KIAA0249; Phosphatidate phosphatase LPIN2; Lipin-2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	LPIN2 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	99,399 Da
OMIM	605519
3D Structure	ModBase 3D Structure for Q92539
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 LPIN2 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 LPIN2 sirna	RNA Interference (RNAi)
Related Product Information for LPIN2 sirna	MBS8213274 is an siRNA targeting LPIN2. Also known as LPIN2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit LPIN2 expression using RNA interference
Other Notes	Small volumes of LPIN2 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 LPIN2. It may not necessarily be applicable to this product.

NCBI GI #	7662022
NCBI GeneID	9663
NCBI Accession #	NP_055461.1
UniProt Primary Accession #	Q92539
UniProt Secondary Accession #	A7MD25; D3DUH3
UniProt Related Accession #	Q92539
GenBank Nucleotide #	NM_014646.2
NCBI Official Full Name	phosphatidate phosphatase LPIN2
NCBI Official Synonym Full Names	lipin 2
NCBI Official Symbol	LPIN2
UniProt Protein Name	Phosphatidate phosphatase LPIN2
UniProt Synonym Protein Names	Lipin-2
Protein Family	Phosphatidate phosphatase
UniProt Gene Name	LPIN2
UniProt Synonym Gene Names	KIAA0249
UniProt Entry Name	LPIN2_HUMAN
NCBI Protein Information	phosphatidate phosphatase LPIN2
NCBI Summary for LPIN2	Mouse studies suggest that this gene functions during normal adipose tissue development and may play a role in human triglyceride metabolism. This gene represents a candidate gene for human lipodystrophy, characterized by loss of body fat, fatty liver, hypertriglyceridemia, and insulin resistance. [provided by RefSeq, Jul 2008]
UniProt Comments for LPIN2	LPIN2: Plays important roles in controlling the metabolism of fatty acids at differents levels. Acts as a magnesium-dependent phosphatidate phosphatase enzyme which catalyzes the conversion of phosphatidic acid to diacylglycerol during triglyceride, phosphatidylcholine and phosphatidylethanolamine biosynthesis in the reticulum endoplasmic membrane. Acts also as a nuclear transcriptional coactivator for PPARGC1A to modulate lipid metabolism. Defects in LPIN2 are the cause of Majeed syndrome (MAJEEDS). An autosomal recessive syndrome characterized by chronic recurrent multifocal osteomyelitis that is of early onset with a lifelong course, congenital dyserythropoietic anemia that presents as hypochromic, microcytic anemia during the first year of life and ranges from mild to transfusion-dependent, and transient inflammatory dermatosis, often manifesting as Sweet syndrome (neutrophilic skin infiltration). Belongs to the lipin family. Protein type: EC 3.1.3.4; Transcription, coactivator/corepressor; Phosphatase (non-protein) Chromosomal Location of Human Ortholog: 18p11.31 Cellular Component: endoplasmic reticulum membrane; nucleus; cytosol Molecular Function: phosphatidate phosphatase activity; transcription coactivator activity Biological Process: transcription, DNA-dependent; dephosphorylation; phospholipid metabolic process; glycerophospholipid biosynthetic process; phosphatidylethanolamine biosynthetic process; phosphatidylcholine biosynthetic process; triacylglycerol biosynthetic process; positive regulation of transcription from RNA polymerase II promoter; lipid metabolic process; cellular lipid metabolic process; fatty acid catabolic process Disease: Majeed Syndrome
Research Articles on LPIN2	**1.** Structural variants unique to the malignant cell line inactivated: LPIN2, a phosphatidic acid phosphatase and a co-factor of PGC1a that is important for lipid metabolism and for suppressing autoinflammation.

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