MTMR1 siRNA – Myotubularin-Related Protein 1 Isoform 1 (Human)

PRODUCT OVERVIEW

Product Name	MTMR1, siRNA
Full Product Name	MTMR1 siRNA (Human)
Product Gene Name	MTMR1 sirna
Product Synonym Names	Myotubularin-related protein 1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	MTMR1 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	63,330 Da
OMIM	300171
3D Structure	ModBase 3D Structure for Q13613
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 MTMR1 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 MTMR1 sirna	RNA Interference (RNAi)
Related Product Information for MTMR1 sirna	MBS8207912 is an siRNA targeting MTMR1. Also known as MTMR1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit MTMR1 expression using RNA interference
Other Notes	Small volumes of MTMR1 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 MTMR1. It may not necessarily be applicable to this product.

NCBI GI #	807201138
NCBI GeneID	8776
NCBI Accession #	NP_001293073.1
UniProt Primary Accession #	Q13613
UniProt Secondary Accession #	Q9UBX6; Q9UEM0; Q9UQD5; A0A024RC07
UniProt Related Accession #	Q13613
GenBank Nucleotide #	NM_001306144.1
NCBI Official Full Name	myotubularin-related protein 1 isoform 1
NCBI Official Synonym Full Names	myotubularin related protein 1
NCBI Official Symbol	MTMR1
UniProt Protein Name	Myotubularin-related protein 1
UniProt Synonym Protein Names	Phosphatidylinositol-3-phosphate phosphatase (EC:3.1.3.64
UniProt Gene Name	MTMR1
UniProt Entry Name	MTMR1_HUMAN
NCBI Protein Information	myotubularin-related protein 1
NCBI Summary for MTMR1	This gene encodes a member of the myotubularin related family of proteins. Members of this family contain the consensus sequence for the active site of protein tyrosine phosphatases. Alternatively spliced variants have been described but their biological validity has not been determined. [provided by RefSeq, Jul 2008]
UniProt Comments for MTMR1	MTMR1: Lipid phosphatase that acts on phosphatidylinositol 3- phosphate and phosphatidylinositol (3,5)-bisphosphate. Belongs to the protein-tyrosine phosphatase family. Non-receptor class myotubularin subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; EC 3.1.3.64; Carbohydrate Metabolism - fructose and mannose; Phosphatase, lipid; Protein phosphatase, tyrosine (non-receptor); Cofactor and Vitamin Metabolism - riboflavin; Cofactor and Vitamin Metabolism - thiamine Chromosomal Location of Human Ortholog: Xq28 Cellular Component: cytoplasm; plasma membrane; cytosol Molecular Function: phosphatidylinositol-3-phosphatase activity; protein tyrosine phosphatase activity Biological Process: phospholipid metabolic process; phosphatidylinositol biosynthetic process; phosphoinositide dephosphorylation
Research Articles on MTMR1	**1.** an aberrant MTMR1 expression and signs of altered myofiber maturation were documented in both DM1 and in DM2 muscle tissues.
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