LAMTOR2 siRNA – Ragulator Complex Protein LAMTOR2 Isoform 2 (Human)

PRODUCT OVERVIEW

Product Name	LAMTOR2, siRNA
Full Product Name	LAMTOR2 siRNA (Human)
Product Gene Name	LAMTOR2 sirna
Product Synonym Names	MAPBPIP; ROBLD3; Ragulator complex protein LAMTOR2; Endosomal adaptor protein p14; Late endosomal/lysosomal Mp1-interacting protein; Late endosomal/lysosomal adaptor and MAPK and MTOR activator 2; Mitogen-activated protein-binding protein-interacting protein; MAPBP-interacting protein; Roadblock domain-containing protein 3
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	LAMTOR2 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	10,242 Da
OMIM	610389
3D Structure	ModBase 3D Structure for Q9Y2Q5
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 LAMTOR2 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 LAMTOR2 sirna	RNA Interference (RNAi)
Related Product Information for LAMTOR2 sirna	MBS8216166 is an siRNA targeting LAMTOR2. Also known as LAMTOR2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit LAMTOR2 expression using RNA interference
Other Notes	Small volumes of LAMTOR2 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 LAMTOR2. It may not necessarily be applicable to this product.

NCBI GI #	223671906
NCBI GeneID	28956
NCBI Accession #	NP_001138736.1
UniProt Primary Accession #	Q9Y2Q5
UniProt Secondary Accession #	Q5VY97; Q5VY98; Q5VY99
UniProt Related Accession #	Q9Y2Q5
GenBank Nucleotide #	NM_001145264.1
NCBI Official Full Name	ragulator complex protein LAMTOR2 isoform 2
NCBI Official Synonym Full Names	late endosomal/lysosomal adaptor, MAPK and MTOR activator 2
NCBI Official Symbol	LAMTOR2
NCBI Official Synonym Symbols	p14; ENDAP; ROBLD3; HSPC003; MAPBPIP; MAPKSP1AP; Ragulator2
UniProt Protein Name	Ragulator complex protein LAMTOR2
UniProt Synonym Protein Names	Endosomal adaptor protein p14; Late endosomal/lysosomal Mp1-interacting protein; Late endosomal/lysosomal adaptor and MAPK and MTOR activator 2; Mitogen-activated protein-binding protein-interacting protein; MAPBP-interacting protein; Roadblock domain-containing protein 3
Protein Family	Ragulator complex protein
UniProt Gene Name	LAMTOR2
UniProt Synonym Gene Names	MAPBPIP; ROBLD3; MAPBP-interacting protein
UniProt Entry Name	LTOR2_HUMAN
NCBI Protein Information	ragulator complex protein LAMTOR2
NCBI Summary for LAMTOR2	The product of this gene is highly conserved with a mouse protein associated with the cytoplasmic face of late endosomes and lysosomes. The mouse protein interacts with MAPK scaffold protein 1, a component of the mitogen-activated protein kinase pathway. In humans, a mutation in this gene has been associated with a primary immunodeficiency syndrome, and suggests a role for this protein in endosomal biogenesis. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2009]
UniProt Comments for LAMTOR2	LAMTOR2: Adapter protein that enhances the efficiency of the MAP kinase cascade. Facilitates the activation of MAPKAPK2 . Heterodimer with MAP2K1IP1. Interacts with ERK and MEK1. Defects in ROBLD3 are the cause of immunodeficiency due to defect in MAPBP-interacting protein. This form of primary immunodeficiency syndrome includes congenital neutropenia, partial albinism, short stature and B-cell and cytotoxic T-cell deficiency. Two alternatively spliced isoforms of the human protein have been described. Protein type: Adaptor/scaffold Chromosomal Location of Human Ortholog: 1q22 Cellular Component: lysosomal membrane; late endosome Molecular Function: protein binding; guanyl-nucleotide exchange factor activity; protein complex scaffold Biological Process: activation of MAPKK activity; cell growth; positive regulation of TOR signaling pathway; positive regulation of GTPase activity Disease: Immunodeficiency Due To Defect In Mapbp-interacting Protein
Research Articles on LAMTOR2	**1.** identified polymorphisms in LAMTOR2 and LAMTOR3 do not seem to play a relevant role in breast cancer

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-sirna/lamtor2/8216166