RANGRF siRNA – Ran Guanine Nucleotide Release Factor Isoform B (Human)

PRODUCT OVERVIEW

Product Name	RANGRF, siRNA
Full Product Name	RANGRF siRNA (Human)
Product Gene Name	RANGRF sirna
Product Synonym Names	MOG1; RANGNRF; Ran guanine nucleotide release factor; RanGNRF; Ran-binding protein MOG1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	RANGRF 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	12,900 Da
OMIM	607954
3D Structure	ModBase 3D Structure for Q9HD47
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 RANGRF 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 RANGRF sirna	RNA Interference (RNAi)
Related Product Information for RANGRF sirna	MBS8227544 is an siRNA targeting RANGRF. Also known as RANGRF siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit RANGRF expression using RNA interference
Other Notes	Small volumes of RANGRF 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 RANGRF. It may not necessarily be applicable to this product.

NCBI GI #	295317377
NCBI GeneID	29098
NCBI Accession #	NP_001171272.1
UniProt Primary Accession #	Q9HD47
UniProt Secondary Accession #	Q68DI3; Q9BR68; Q9HD48; Q9NRU9; Q9P001; Q9P0P2; D3DTR6
UniProt Related Accession #	Q9HD47
GenBank Nucleotide #	NM_001177801.1
NCBI Official Full Name	ran guanine nucleotide release factor isoform B
NCBI Official Synonym Full Names	RAN guanine nucleotide release factor
NCBI Official Symbol	RANGRF
NCBI Official Synonym Symbols	MOG1; HSPC165; HSPC236; RANGNRF
UniProt Protein Name	Ran guanine nucleotide release factor
UniProt Synonym Protein Names	Ran-binding protein MOG1
Protein Family	Ran guanine nucleotide release factor
UniProt Gene Name	RANGRF
UniProt Synonym Gene Names	MOG1; RANGNRF; RanGNRF
UniProt Entry Name	MOG1_HUMAN
NCBI Protein Information	ran guanine nucleotide release factor
NCBI Summary for RANGRF	This gene encodes a protein that has been shown to function as a guanine nucleotide release factor in mouse and to regulate the expression and function of the Nav1.5 cardiac sodium channel in human. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2010]
UniProt Comments for RANGRF	RANGRF: May regulate the intracellular trafficking of RAN. In cardiac cells seems to regulate the cell surface localization of SCN5A. Belongs to the MOG1 family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: GEFs, misc.; GEFs Chromosomal Location of Human Ortholog: 17p13.1 Cellular Component: nucleoplasm; rough endoplasmic reticulum; cytoplasm; plasma membrane; caveola; nucleus Molecular Function: sodium channel regulator activity; Ran guanyl-nucleotide exchange factor activity; guanyl-nucleotide exchange factor activity; Ran GTPase binding; protein transporter activity Biological Process: ER to Golgi vesicle-mediated transport; regulation of membrane potential; protein exit from endoplasmic reticulum; regulation of heart rate
Research Articles on RANGRF	**1.** Results suggest that dominant-negative mutations in MOG1 can impair the trafficking of Na(v)1.5 to the membrane, leading to I(Na) reduction and clinical manifestation of Brugada syndrome.
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/rangrf/8227544