PREX2 siRNA – Phosphatidylinositol 3,4,5-Trisphosphate-Dependent Rac Exchanger 2 Protein Isoform a (Human)

PRODUCT OVERVIEW

Product Name	PREX2, siRNA
Full Product Name	PREX2 siRNA (Human)
Product Gene Name	PREX2 sirna
Product Synonym Names	DEPDC2; Phosphatidylinositol 3.4.5-trisphosphate-dependent Rac exchanger 2 protein; P-Rex2; PtdIns(3.4.5)-dependent Rac exchanger 2; DEP domain-containing protein 2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PREX2 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	112,404 Da
OMIM	612139
3D Structure	ModBase 3D Structure for Q70Z35
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 PREX2 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 PREX2 sirna	RNA Interference (RNAi)
Related Product Information for PREX2 sirna	MBS8219983 is an siRNA targeting PREX2. Also known as PREX2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit PREX2 expression using RNA interference
Other Notes	Small volumes of PREX2 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 PREX2. It may not necessarily be applicable to this product.

NCBI GI #	47578115
NCBI GeneID	80243
NCBI Accession #	NP_079146.2
UniProt Primary Accession #	Q70Z35
UniProt Secondary Accession #	Q32KL0; Q32KL1; Q6R7Q3; Q6R7Q4; Q9H805; Q9H961; B4DFX0
UniProt Related Accession #	Q70Z35
GenBank Nucleotide #	NM_024870.2
NCBI Official Full Name	phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein isoform a
NCBI Official Synonym Full Names	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 2
NCBI Official Symbol	PREX2
NCBI Official Synonym Symbols	DEP.2; DEPDC2; P-REX2; PPP1R129; 6230420N16Rik
UniProt Protein Name	Phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
UniProt Synonym Protein Names	DEP domain-containing protein 2
Protein Family	Phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
UniProt Gene Name	PREX2
UniProt Synonym Gene Names	DEPDC2; P-Rex2; PtdIns(3,4,5)-dependent Rac exchanger 2
UniProt Entry Name	PREX2_HUMAN
NCBI Protein Information	phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
UniProt Comments for PREX2	PREX2: Functions as a RAC1 guanine nucleotide exchange factor (GEF), activating Rac proteins by exchanging bound GDP for free GTP. Its activity is synergistically activated by phosphatidylinositol 3,4,5-trisphosphate and the beta gamma subunits of heterotrimeric G protein. Mediates the activation of RAC1 in a PI3K-dependent manner. May be an important mediator of Rac signaling, acting directly downstream of both G protein- coupled receptors and phosphoinositide 3-kinase. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Phosphatase, regulatory subunit; GEFs; GEFs, Rac/Rho Chromosomal Location of Human Ortholog: 8q13.2 Cellular Component: plasma membrane Molecular Function: Rac guanyl-nucleotide exchange factor activity Biological Process: G-protein coupled receptor protein signaling pathway; phosphoinositide 3-kinase cascade; adult locomotory behavior; dendrite morphogenesis
Research Articles on PREX2	**1.** CXCL9 is involved in the invasion ability of hepatocellular carcinoma cells possibly through up-regulation of its potential effector PREX2.
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.

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