KIFAP3 siRNA – Kinesin-Associated Protein 3 Isoform 2 (Human)

PRODUCT OVERVIEW

Product Name	KIFAP3, siRNA
Full Product Name	KIFAP3 siRNA (Human)
Product Gene Name	KIFAP3 sirna
Product Synonym Names	KIF3AP; SMAP; Kinesin-associated protein 3; KAP-3; KAP3; Smg GDS-associated protein
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	KIFAP3 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	82,144 Da
OMIM	601836
3D Structure	ModBase 3D Structure for Q92845
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 KIFAP3 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 KIFAP3 sirna	RNA Interference (RNAi)
Related Product Information for KIFAP3 sirna	MBS8204849 is an siRNA targeting KIFAP3. Also known as KIFAP3 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit KIFAP3 expression using RNA interference
Other Notes	Small volumes of KIFAP3 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 KIFAP3. It may not necessarily be applicable to this product.

NCBI GI #	325197182
NCBI GeneID	22920
NCBI Accession #	NP_001191443.1
UniProt Primary Accession #	Q92845
UniProt Secondary Accession #	Q8NHU7; Q9H416; B1AKU4; B1AKU5; B2RDL1; B7Z8A3; F5H591
UniProt Related Accession #	Q92845
GenBank Nucleotide #	NM_001204514.1
NCBI Official Full Name	kinesin-associated protein 3 isoform 2
NCBI Official Synonym Full Names	kinesin-associated protein 3
NCBI Official Symbol	KIFAP3
NCBI Official Synonym Symbols	FLA3; KAP3; SMAP; KAP-1; KAP-3; Smg-GDS; dJ190I16.1
UniProt Protein Name	Kinesin-associated protein 3
UniProt Synonym Protein Names	Smg GDS-associated protein
Protein Family	Kinesin-associated protein
UniProt Gene Name	KIFAP3
UniProt Synonym Gene Names	KIF3AP; SMAP; KAP-3; KAP3
UniProt Entry Name	KIFA3_HUMAN
NCBI Protein Information	kinesin-associated protein 3
NCBI Summary for KIFAP3	The small G protein GDP dissociation stimulator (smg GDS) is a regulator protein having two activities on a group of small G proteins including the Rho and Rap1 family members and Ki-Ras; one is to stimulate their GDP/GTP exchange reactions, and the other is to inhibit their interactions with membranes. The protein encoded by this gene contains 9 'Armadillo' repeats and interacts with the smg GDS protein through these repeats. This protein, which is highly concentrated around the endoplasmic reticulum, is phosphorylated by v-src, and this phosphorylation reduces the affinity of the protein for smg GDS. It is thought that this protein serves as a linker between human chromosome-associated polypeptide (HCAP) and KIF3A/B, a kinesin superfamily protein in the nucleus, and that it plays a role in the interaction of chromosomes with an ATPase motor protein. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011]
UniProt Comments for KIFAP3	KIFAP3: Involved in tethering the chromosomes to the spindle pole and in chromosome movement. Binds to the tail domain of the KIF3A/KIF3B heterodimer to form a heterotrimeric KIF3 complex and may regulate the membrane binding of this complex. Protein type: Adaptor/scaffold Chromosomal Location of Human Ortholog: 1q24.2 Cellular Component: microtubule cytoskeleton; Golgi apparatus; centrosome; condensed nuclear chromosome; endoplasmic reticulum; spindle microtubule; kinesin II complex; axoneme; cytosol; photoreceptor connecting cilium Molecular Function: protein binding; kinesin binding Biological Process: negative regulation of cell proliferation; protein localization; positive regulation of calcium-dependent cell-cell adhesion; organelle organization and biogenesis; antigen processing and presentation of exogenous peptide antigen via MHC class II; protein complex assembly; signal transduction; blood coagulation; microtubule-based movement; negative regulation of apoptosis; microtubule-based process
Research Articles on KIFAP3	**1.** Common genetic variation in the Kinesin-Associated Protein 3 (KIFAP3) gene (rs1541160) was reported to have a significant effect on survival in amyotrophic lateral sclerosis patients.

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