IQGAP1 siRNA – Ras Gtpase-Activating-Like Protein IQGAP1 (Mouse)

PRODUCT OVERVIEW

Product Name	IQGAP1, siRNA
Full Product Name	IQGAP1 siRNA (Mouse)
Product Gene Name	IQGAP1 sirna
Product Synonym Names	Ras GTPase-activating-like protein IQGAP1
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	IQGAP1 siRNA (Mouse) 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	188,742 Da
3D Structure	ModBase 3D Structure for Q9JKF1
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 mouse IQGAP1 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 IQGAP1 sirna	RNA Interference (RNAi)
Related Product Information for IQGAP1 sirna	MBS8211680 is an siRNA targeting IQGAP1. Also known as IQGAP1 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit IQGAP1 expression using RNA interference
Other Notes	Small volumes of IQGAP1 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 IQGAP1. It may not necessarily be applicable to this product.

NCBI GI #	242332572

NCBI GeneID	29875
NCBI Accession #	NP_057930.2
UniProt Primary Accession #	Q9JKF1
UniProt Secondary Accession #	G3UW45
UniProt Related Accession #	Q9JKF1
GenBank Nucleotide #	NM_016721.2
NCBI Official Full Name	ras GTPase-activating-like protein IQGAP1
NCBI Official Synonym Full Names	IQ motif containing GTPase activating protein 1
NCBI Official Symbol	Iqgap1
NCBI Official Synonym Symbols	AA682088; mKIAA0051; D7Ertd237e; D7Ertd257e
UniProt Protein Name	Ras GTPase-activating-like protein IQGAP1
Protein Family	Ras GTPase-activating-like protein
UniProt Gene Name	Iqgap1
UniProt Entry Name	IQGA1_MOUSE
NCBI Protein Information	ras GTPase-activating-like protein IQGAP1
UniProt Comments for IQGAP1	IQGAP1: Binds to activated CDC42 but does not stimulate its GTPase activity. It associates with calmodulin. Could serve as an assembly scaffold for the organization of a multimolecular complex that would interface incoming signals to the reorganization of the actin cytoskeleton at the plasma membrane. May promote neurite outgrowth. Interacts with CDC42; the interaction is demonstrated with IQGAP1 in GTP-bound and in nucleotide-free state. Interacts with RAC1. Does not interact with RHOA. Interacts with TSG101. Interacts with PAK6. Expressed in the placenta, lung, and kidney. A lower level expression is seen in the heart, liver, skeletal muscle and pancreas. Protein type: Motility/polarity/chemotaxis; GAPs; GAPs, Ras Cellular Component: microtubule; neuron projection; focal adhesion; protein complex; leading edge; intercellular junction; ribonucleoprotein complex; actin cytoskeleton; nucleoplasm; microtubule cytoskeleton; extrinsic to internal side of plasma membrane; growth cone; membrane; axon; cytoplasm; plasma membrane; midbody; intracellular; cell junction; lateral plasma membrane Molecular Function: calmodulin binding; protein serine/threonine kinase activator activity; protein binding; Rho GTPase binding; phosphatidylinositol-3,4,5-triphosphate binding; protein complex binding; Rac GTPase binding; protein kinase binding; protein phosphatase binding; GTPase activator activity Biological Process: epidermal growth factor receptor signaling pathway; regulation of GTPase activity; fibroblast growth factor receptor signaling pathway; negative regulation of dephosphorylation; positive regulation of protein kinase activity; small GTPase mediated signal transduction; platelet-derived growth factor receptor signaling pathway; signal transduction; regulation of cytokine production
Research Articles on IQGAP1	**1.** IQGAP1 has the potential to modulate airway contraction severity in acute asthma.
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