DAB2IP siRNA – Disabled Homolog 2-Interacting Protein (Rat)

PRODUCT OVERVIEW

Product Name	DAB2IP, siRNA
Full Product Name	DAB2IP siRNA (Rat)
Product Gene Name	DAB2IP sirna
Product Synonym Names	Disabled homolog 2-interacting protein; DAB2-interacting protein; ASK-interacting protein 1; AIP-1; DIP1/2; DOC-2/DAB2 interactive protein
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	DAB2IP siRNA (Rat) 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	110,005 Da
3D Structure	ModBase 3D Structure for Q6P730
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 rat DAB2IP 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 DAB2IP sirna	RNA Interference (RNAi)
Related Product Information for DAB2IP sirna	MBS8209216 is an siRNA targeting DAB2IP. Also known as DAB2IP siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit DAB2IP expression using RNA interference
Other Notes	Small volumes of DAB2IP 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 DAB2IP. It may not necessarily be applicable to this product.

NCBI GI #	166295218

NCBI GeneID	192126
NCBI Accession #	NP_619724.3
UniProt Primary Accession #	Q6P730
UniProt Secondary Accession #	Q924M9
UniProt Related Accession #	Q6P730
GenBank Nucleotide #	NM_138710.3
NCBI Official Full Name	disabled homolog 2-interacting protein
NCBI Official Synonym Full Names	DAB2 interacting protein
NCBI Official Symbol	Dab2ip
NCBI Official Synonym Symbols	AIP-1; DIP1/2
UniProt Protein Name	Disabled homolog 2-interacting protein
UniProt Synonym Protein Names	ASK-interacting protein 1; AIP-1; DIP1/2; DOC-2/DAB2 interactive protein
Protein Family	Disabled homolog 2-interacting protein
UniProt Gene Name	Dab2ip
UniProt Synonym Gene Names	DAB2-interacting protein; AIP-1
UniProt Entry Name	DAB2P_RAT
NCBI Protein Information	disabled homolog 2-interacting protein
NCBI Summary for DAB2IP	GTPase-activating protein; binds the N-terminal domain of DOC-2/DAB2 [RGD, Feb 2006]

UniProt Comments for DAB2IP	DAB2IP: Functions as a Ras GTPase-activating protein. Through its interaction with MAP3K5 disrupts the association of MAP3K5 with the inhibitory 14-3-3 complex. Mediates TNF/TRAF2-induced MAP3K5-JNK activation, while it inhibits CHUK- NF-kappa-B signaling. May act as a tumor suppressor gene. A chromosomal aberration involving DAB2IP is found in a patient with acute myeloid leukemia (AML). Translocation t(9;11)(q34;q23) with MLL. May give rise to a MLL-DAB2IP fusion protein lacking the PH domain. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Tumor suppressor; GAPs; GAPs, Ras Cellular Component: cell soma; endocytic vesicle; axon; dendrite; cytoplasm; plasma membrane; intracellular Molecular Function: identical protein binding; protein homodimerization activity; protein phosphatase 2A binding; mitogen-activated protein kinase kinase binding; death receptor binding; protein N-terminus binding; mitogen-activated protein kinase kinase kinase binding; protein kinase binding; GTPase activator activity; protein binding; vascular endothelial growth factor receptor 2 binding; protein complex binding; phosphoinositide 3-kinase binding; kinase binding; SH3 domain binding; phosphatidylinositol 3-phosphate binding Biological Process: negative regulation of epidermal growth factor receptor signaling pathway; positive regulation of JNK activity; negative regulation of MAP kinase activity; regulation of protein heterodimerization activity; apoptosis; positive regulation of apoptosis; positive regulation of JNK cascade; negative regulation of transcription from RNA polymerase II promoter; activation of JNK activity; negative regulation of cell proliferation; negative regulation of phosphoinositide 3-kinase activity; positive regulation of MAPKKK cascade; negative regulation of protein amino acid phosphorylation; regulation of protein complex assembly; negative regulation of Ras protein signal transduction; angiogenesis; regulation of I-kappaB kinase/NF-kappaB cascade; layer formation in the cerebral cortex; negative regulation of epithelial cell proliferation; negative regulation of vascular endothelial growth factor receptor signaling pathway; lumen formation; negative regulation of I-kappaB kinase/NF-kappaB cascade; response to unfolded protein; negative regulation of angiogenesis; induction of apoptosis via death domain receptors; inhibition of NF-kappaB transcription factor; cellular protein catabolic process; negative regulation of fibroblast proliferation; negative regulation of toll-like receptor 4 signaling pathway; activation of MAPKKK activity; positive regulation of protein catabolic process; positive regulation of transcription from RNA polymerase II promoter; negative regulation of cell growth; negative regulation of transcription, DNA-dependent; I-kappaB phosphorylation; cell locomotion involved in cerebral cortex radial glia guided migration; positive regulation of epithelial cell proliferation; neurite morphogenesis; negative regulation of phosphoinositide 3-kinase cascade
Research Articles on DAB2IP	**1.** These findings suggest that Dab-2 is transiently upregulated and phosphorylated (particularly the p96 kDa isoform) in experimental autoimmune encephalomyelitis and may be involved in TGF-beta signaling.
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