DOK2 siRNA – Docking Protein 2 (Human)

PRODUCT OVERVIEW

Product Name	DOK2, siRNA
Full Product Name	DOK2 siRNA (Human)
Product Gene Name	DOK2 sirna
Product Synonym Names	Docking protein 2; Downstream of tyrosine kinase 2; p56(dok-2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	DOK2 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	45,379 Da
OMIM	604997
3D Structure	ModBase 3D Structure for O60496
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 DOK2 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 DOK2 sirna	RNA Interference (RNAi)
Related Product Information for DOK2 sirna	MBS8232499 is an siRNA targeting DOK2. Also known as DOK2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit DOK2 expression using RNA interference
Other Notes	Small volumes of DOK2 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 DOK2. It may not necessarily be applicable to this product.

NCBI GI #	41406050
NCBI GeneID	9046
NCBI Accession #	NP_003965.2
UniProt Primary Accession #	O60496
UniProt Secondary Accession #	Q8N5A4
UniProt Related Accession #	O60496
GenBank Nucleotide #	NM_003974.2
NCBI Official Full Name	docking protein 2
NCBI Official Synonym Full Names	docking protein 2, 56kDa
NCBI Official Symbol	DOK2
NCBI Official Synonym Symbols	p56DOK; p56dok-2
UniProt Protein Name	Docking protein 2
UniProt Synonym Protein Names	Downstream of tyrosine kinase 2; p56(dok-2)
Protein Family	Docking protein
UniProt Gene Name	DOK2
UniProt Entry Name	DOK2_HUMAN
NCBI Protein Information	docking protein 2
NCBI Summary for DOK2	The protein encoded by this gene is constitutively tyrosine phosphorylated in hematopoietic progenitors isolated from chronic myelogenous leukemia (CML) patients in the chronic phase. It may be a critical substrate for p210(bcr/abl), a chimeric protein whose presence is associated with CML. This encoded protein binds p120 (RasGAP) from CML cells. [provided by RefSeq, Jul 2008]
UniProt Comments for DOK2	DOK2: a member of the p62dok family of proteins that interact with receptor tyrosine kinases and mediate particular biological responses. Constitutively tyrosine phosphorylated in hematopoietic progenitors isolated from chronic myelogenous leukemia (CML) patients in the chronic phase. It may be a critical substrate for p210(bcr/Abl), a chimeric protein whose presence is associated with CML. Contains a pleckstrin homology domain at the amino terminus, 13 potential tyrosine phosphorylation sites, and six PXXP SH3 recognition motifs. Binds p120 (RasGAP) from CML cells. Protein type: Adaptor/scaffold Chromosomal Location of Human Ortholog: 8p21.3 Cellular Component: cytosol Molecular Function: receptor signaling protein activity; transmembrane receptor protein tyrosine kinase adaptor protein activity; insulin receptor binding Biological Process: cell surface receptor linked signal transduction; Ras protein signal transduction; signal transduction; blood coagulation; leukocyte migration; transmembrane receptor protein tyrosine kinase signaling pathway
Research Articles on DOK2	**1.** point mutations in DOK1 and DOK2 genes are detected with low frequency in chronic myelomonocytic leukemia but may have consequences for the function of the DOK2 PTB domain
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