SH2B1 siRNA – SH2B Adapter Protein 1 Isoform 1 (Mouse)

PRODUCT OVERVIEW

Product Name	SH2B1, siRNA
Full Product Name	SH2B1 siRNA (Mouse)
Product Gene Name	SH2B1 sirna
Product Synonym Names	SH2BPSM1; SH2B adapter protein 1; Pro-rich. PH and SH2 domain-containing signaling mediator; PSM; SH2 domain-containing protein 1B; SH2-B PH domain-containing signaling mediator 1
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SH2B1 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	70,190 Da
3D Structure	ModBase 3D Structure for Q91ZM2
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 SH2B1 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 SH2B1 sirna	RNA Interference (RNAi)
Related Product Information for SH2B1 sirna	MBS8217655 is an siRNA targeting SH2B1. Also known as SH2B1 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit SH2B1 expression using RNA interference
Other Notes	Small volumes of SH2B1 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 SH2B1. It may not necessarily be applicable to this product.

NCBI GI #	125347242

NCBI GeneID	20399
NCBI Accession #	NP_001074928.1
UniProt Primary Accession #	Q91ZM2
UniProt Secondary Accession #	O54867; Q05DJ7; Q792R7; Q91ZM3; Q91ZV5; Q9WVM5
UniProt Related Accession #	Q91ZM2
GenBank Nucleotide #	NM_001081459.2
NCBI Official Full Name	SH2B adapter protein 1 isoform 1
NCBI Official Synonym Full Names	SH2B adaptor protein 1
NCBI Official Symbol	Sh2b1
NCBI Official Synonym Symbols	Psm; Irip; SH2-B; SH2-Bb; AI425885; Sh2bpsm1; mKIAA1299; C530001K22Rik
UniProt Protein Name	SH2B adapter protein 1
UniProt Synonym Protein Names	Pro-rich, PH and SH2 domain-containing signaling mediator; PSM; SH2 domain-containing protein 1B; SH2-B PH domain-containing signaling mediator 1
Protein Family	SH2B adapter protein
UniProt Gene Name	Sh2b1
UniProt Synonym Gene Names	Sh2bpsm1; PSM
UniProt Entry Name	SH2B1_MOUSE
NCBI Protein Information	SH2B adapter protein 1
UniProt Comments for SH2B1	SH2-B-beta: an adaptor protein that specifically activates JAK2 and serve as adapter proteins for JAK1, -2 and -3. YXXL motifs in SH2-Bbeta are phosphorylated by JAK2, JAK1, and platelet-derived growth factor receptor and are required for membrane ruffling. Protein type: Adaptor/scaffold Cellular Component: ruffle; membrane; cytoplasm; nucleus Molecular Function: signal transducer activity; protein binding Biological Process: lamellipodium biogenesis; positive regulation of mitosis; cell motility
Research Articles on SH2B1	**1.** SH2B1 in pancreatic beta-cells promotes insulin synthesis and secretion at least in part by enhancing activation of JAK2 and/or Pdx1 pathways in response to hormonal and nutritional signals.
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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