Datasheet for ABIN7555459

SH2B1 Protein (AA 1-756) (His tag)

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Overview

Quantity:	1 mg
Target:	SH2B1
Protein Characteristics:	AA 1-756
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SH2B1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SH2B1 Protein expressed in mammalian cells.
Sequence:	MNGAPSPEDG ASPSSPPLPP PPPPSWREFC ESHARAAALD FARRFRLYLA SHPQYAGPGA EAAFSRRFAE LFLQHFEAEV ARASGSLSPP ILAPLSPGAE ISPHDLSLES CRVGGPLAVL GPSRSSEDLA GPLPSSVSSS STTSSKPKLK KRFSLRSVGR SVRGSVRGIL QWRGTVDPPS SAGPLETSSG PPVLGGNSNS NSSGGAGTVG RGLVSDGTSP GERWTHRFER LRLSRGGGAL KDGAGMVQRE ELLSFMGAEE AAPDPAGVGR GGGVAGPPSG GGGQPQWQKC RLLLRSEGEG GGGSRLEFFV PPKASRPRLS IPCSSITDVR TTTALEMPDR ENTFVVKVEG PSEYIMETVD AQHVKAWVSD IQECLSPGPC PATSPRPMTL PLAPGTSFLT RENTDSLELS CLNHSESLPS QDLLLGPSES NDRLSQGAYG GLSDRPSASI SPSSASIAAS HFDSMELLPP ELPPRIPIEE GPPTGTVHPL SAPYPPLDTP ETATGSFLFQ GEPEGGEGDQ PLSGYPWFHG MLSRLKAAQL VLTGGTGSHG VFLVRQSETR RGEYVLTFNF QGKAKHLRLS LNEEGQCRVQ HLWFQSIFDM LEHFRVHPIP LESGGSSDVV LVSYVPSSQR QQEPTTSHDP PQPPEPPSWT DPPQPGAEEA SRAPEVAAAA AAAAKERQEK EKAGGGGVPE ELVPVVELVP VVELEEAIAP GSEAQGAGSG

Product Details

	GDAGVPPMVQ LQQSPLGGDG EEGGHPRAIN NQYSFV **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	SH2B1
Alternative Name:	SH2B1 (SH2B1 Products)
Background:	SH2B adapter protein 1 (Pro-rich, PH and SH2 domain-containing signaling mediator) (PSM) (SH2 domain-containing protein 1B),FUNCTION: Adapter protein for several members of the tyrosine kinase receptor family. Involved in multiple signaling pathways mediated by Janus kinase (JAK) and receptor tyrosine kinases, including the receptors of insulin (INS), insulin-like growth factor I (IGF1), nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), glial cell line-derived neurotrophic factor (GDNF), platelet-derived growth factor (PDGF) and fibroblast growth factors (FGFs). In growth hormone (GH) signaling, autophosphorylated ('Tyr-

Target Details

	813') JAK2 recruits SH2B1, which in turn is phosphorylated by JAK2 on tyrosine residues. These phosphotyrosines form potential binding sites for other signaling proteins. GH also promotes serine/threonine phosphorylation of SH2B1 and these phosphorylated residues may serve to recruit other proteins to the GHR-JAK2-SH2B1 complexes, such as RAC1. In leptin (LEP) signaling, binds to and potentiates the activation of JAK2 by globally enhancing downstream pathways. In response to leptin, binds simultaneously to both, JAK2 and IRS1 or IRS2, thus mediating formation of a complex of JAK2, SH2B1 and IRS1 or IRS2. Mediates tyrosine phosphorylation of IRS1 and IRS2, resulting in activation of the PI 3-kinase pathway. Acts as a positive regulator of NGF-mediated activation of the Akt/Forkhead pathway, prolongs NGF-induced phosphorylation of AKT1 on 'Ser-473' and AKT1 enzymatic activity. Enhances the kinase activity of the cytokine receptor-associated tyrosine kinase JAK2 and of other receptor tyrosine kinases, such as FGFR3 and NTRK1. For JAK2, the mechanism seems to involve dimerization of both, SH2B1 and JAK2. Enhances RET phosphorylation and kinase activity. Isoforms seem to be differentially involved in IGF-I and PDGF-induced mitogenesis (By similarity). {ECO:0000250, ECO:0000269|PubMed:11827956, ECO:0000269|PubMed:14565960, ECO:0000269|PubMed:15767667, ECO:0000269|PubMed:16569669, ECO:0000269|PubMed:17471236, ECO:0000269|PubMed:9694882, ECO:0000269|PubMed:9742218}.
Molecular Weight:	79.4 kDa
UniProt:	Q9NRF2

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months