Datasheet for ABIN7563869

SIK1 Protein (AA 1-779) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	SIK1
Protein Characteristics:	AA 1-779
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SIK1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Sik1 Protein expressed in mammalian cells.
Sequence:	MVIMSEFSAV PSGTGQGQQK PLRVGFYDVE RTLGKGNFAV VKLARHRVTK TQVAIKIIDK TRLDSSNLEK IYREVQLMKL LNHPNIIKLY QVMETKDMLY IVTEFAKNGE MFDYLTSNGH LSENEARQKF WQILSAVEYC HNHHIVHRDL KTENLLLDSN MDIKLADFGF GNFYKPGEPL STWCGSPPYA APEVFEGKEY EGPQLDVWSL GVVLYVLVCG SLPFDGPNLP TLRQRVLEGR FRIPFFMSQD CETLIRRMLV VDPAKRITIA QIRQHRWMQA DPTLLQQDDP AFDMQGYTSN LGDYNEQVLG IMQALGIDRQ RTIESLQNSS YNHFAAIYYL LLERLKEHRS AQPSSRPTPA PTRQPQLRSS DLSSLEVPQE ILPCDPFRPS LLCPQPQALA QSVLQAEIDC DLHSSLQPLL FPLDTNCSGV FRHRSISPSS LLDTAISEEA RQGPSLEEEQ EVQEPLPGST GRRHTLAEVS THFSPLNPPC IIVSSSATAS PSEGTSSDSC LPFSASEGPA GLGSGLATPG LLGTSSPVRL ASPFLGSQSA TPVLQTQAGL GTAVLPPVSF QEGRRASDTS LTQGLKAFRQ QLRKNARTKG FLGLNKIKGL ARQVCQSSVR TPRGGMSTFH TPAPSSGLQG CTTSNREGRS LLEEVLHQQR LLQLQHHSST AAASSGCQQG PQLSPVPYVL APCDSLLVSG IPLLPTPLLQ AGMSPVASAA

Product Details

	HLLDTHLHIS AGPVALPTGP LPQCLTRLSP GCDPAGLPQG DCEMEDLTSG QRGTFVLVQ **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:	SIK1
Alternative Name:	Sik1 (SIK1 Products)
Background:	Serine/threonine-protein kinase SIK1 (EC 2.7.11.1) (HRT-20) (Myocardial SNF1-like kinase) (Salt-inducible kinase 1) (SIK-1) (Serine/threonine-protein kinase SNF1-like kinase 1) (Serine/threonine-protein kinase SNF1LK),FUNCTION: Serine/threonine-protein kinase involved in various processes such as cell cycle regulation, gluconeogenesis and lipogenesis regulation, muscle growth and differentiation and tumor suppression. Phosphorylates HDAC4, HDAC5, PPME1, SREBF1, CRTC1/TORC1 and CRTC2/TORC2. Acts as a tumor suppressor and plays a key role in p53/TP53-dependent anoikis, a type of apoptosis triggered by cell detachment:

Target Details

	required for phosphorylation of p53/TP53 in response to loss of adhesion and is able to suppress metastasis. Part of a sodium-sensing signaling network, probably by mediating phosphorylation of PPME1: following increases in intracellular sodium, SIK1 is activated by CaMK1 and phosphorylates PPME1 subunit of protein phosphatase 2A (PP2A), leading to dephosphorylation of sodium/potassium-transporting ATPase ATP1A1 and subsequent increase activity of ATP1A1. Acts as a regulator of muscle cells by phosphorylating and inhibiting class II histone deacetylases HDAC4 and HDAC5, leading to promote expression of MEF2 target genes in myocytes. Also required during cardiomyogenesis by regulating the exit of cardiomyoblasts from the cell cycle via down-regulation of CDKN1C/p57Kip2. Acts as a regulator of hepatic gluconeogenesis by phosphorylating and repressing the CREB-specific coactivators CRTC1/TORC1 and CRTC2/TORC2, leading to inhibit CREB activity. Also regulates hepatic lipogenesis by phosphorylating and inhibiting SREBF1. In concert with CRTC1/TORC1, regulates the light-induced entrainment of the circadian clock by attenuating PER1 induction, represses CREB-mediated transcription of PER1 by phosphorylating and deactivating CRTC1/TORC1. {ECO:0000269|PubMed:12200423, ECO:0000269|PubMed:15177563, ECO:0000269|PubMed:15511237, ECO:0000269|PubMed:16148943, ECO:0000269|PubMed:16817901, ECO:0000269|PubMed:17468767, ECO:0000269|PubMed:19244231, ECO:0000269|PubMed:19622832, ECO:0000269|PubMed:20140255, ECO:0000269|PubMed:23993098}.
Molecular Weight:	85.1 kDa
UniProt:	Q60670
Pathways:	Regulation of Muscle Cell Differentiation, Skeletal Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process

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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months