Datasheet for ABIN7546271

SPHK1 Protein (AA 1-384) (His tag)

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Overview

Quantity:	1 mg
Target:	SPHK1
Protein Characteristics:	AA 1-384
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SPHK1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SPHK1 Protein expressed in mammalian cells.
Sequence:	MDPAGGPRGV LPRPCRVLVL LNPRGGKGKA LQLFRSHVQP LLAEAEISFT LMLTERRNHA RELVRSEELG RWDALVVMSG DGLMHEVVNG LMERPDWETA IQKPLCSLPA GSGNALAASL NHYAGYEQVT NEDLLTNCTL LLCRRLLSPM NLLSLHTASG LRLFSVLSLA WGFIADVDLE SEKYRRLGEM RFTLGTFLRL AALRTYRGRL AYLPVGRVGS KTPASPVVVQ QGPVDAHLVP LEEPVPSHWT VVPDEDFVLV LALLHSHLGS EMFAAPMGRC AAGVMHLFYV RAGVSRAMLL RLFLAMEKGR HMEYECPYLV YVPVVAFRLE PKDGKGVFAV DGELMVSEAV QGQVHPNYFW MVSGCVEPPP SWKPQQMPPP EEPL **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:

Product Details

- 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:	SPHK1
Alternative Name:	SPHK1 (SPHK1 Products)
Background:	Sphingosine kinase 1 (SK 1) (SPK 1) (EC 2.7.1.91) (Acetyltransferase SPHK1) (EC 2.3.1.-),FUNCTION: Catalyzes the phosphorylation of sphingosine to form sphingosine 1-phosphate (SPP), a lipid mediator with both intra- and extracellular functions. Also acts on D-erythro-sphingosine and to a lesser extent sphinganine, but not other lipids, such as D,L-threo-dihydrosphingosine, N,N-dimethylsphingosine, diacylglycerol, ceramide, or phosphatidylinositol (PubMed:20577214, PubMed:23602659, PubMed:29662056, PubMed:24929359, PubMed:11923095). In contrast to proapoptotic SPHK2, has a negative effect on intracellular ceramide levels, enhances cell growth and inhibits apoptosis (PubMed:16118219). Involved in the regulation of inflammatory response and neuroinflammation. Via the product sphingosine 1-phosphate, stimulates TRAF2 E3 ubiquitin ligase activity, and promotes activation of NF-kappa-B in response to TNF signaling leading to IL17 secretion (PubMed:20577214). In response to TNF and in parallel to NF-kappa-B activation, negatively regulates RANTES induction through p38 MAPK signaling pathway (PubMed:23935096). Involved in endocytic membrane trafficking induced by sphingosine, recruited to dilate endosomes, also plays a role

Target Details

	on later stages of endosomal maturation and membrane fusion independently of its kinase activity (PubMed:28049734, PubMed:24929359). In Purkinje cells, seems to be also involved in the regulation of autophagosome-lysosome fusion upon VEGFA (PubMed:25417698). {ECO:0000269|PubMed:11923095, ECO:0000269|PubMed:16118219, ECO:0000269|PubMed:20577214, ECO:0000269|PubMed:23602659, ECO:0000269|PubMed:23935096, ECO:0000269|PubMed:24929359, ECO:0000269|PubMed:25417698, ECO:0000269|PubMed:28049734, ECO:0000269|PubMed:29662056}., FUNCTION: Has serine acetyltransferase activity on PTGS2/COX2 in an acetyl-CoA dependent manner. The acetyltransferase activity increases in presence of the kinase substrate, sphingosine. During neuroinflammation, through PTGS2 acetylation, promotes neuronal secretion of specialized preresolving mediators (SPMs), especially 15-R-lipoxin A4, which results in an increase of phagocytic microglia. {ECO:0000250|UniProtKB:Q8CI15}.
Molecular Weight:	42.5 kDa
UniProt:	Q9NYA1
Pathways:	VEGF Signaling

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.
Expiry Date:	12 months