

Datasheet for ABIN7559359  
**SPHK1 Protein (AA 1-382) (His tag)**



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## Overview

Quantity:	1 mg
Target:	SPHK1
Protein Characteristics:	AA 1-382
Origin:	Mouse
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:	<p>MEPVECP RGL LPRPCRVLVL LNPQGGK GKA LQLFQSRVQP FLEEAEITFK LILTERKNHA RELVCAEELG HWDALAVMSG DGLMHEVVNG LMERPDWETA IQKPLCSLPG GSGNALAASV NHYAGYEQVT NEDLLINCTL LLCRRRLSPM NLLSLHTASG LRLYSVLSLS WGFVADV DLE SEKYRRLGEI RFTVGTFFRL ASLRIYQQQL AYLPVGTVAS KRPASTLVQK GPVDTHLVPL EEPVPSHWTV VPEQDFVLVL VLLHHTLSSE LFAAPMGRCE AGVMHLFYVR AGVSRAALLR LFLAMQKGKH MELDCPYLVH VPVVAFRLEP RSQRGVFSVD GELMVCEAVQ GQVHPNYLWM VCGSRDAPSG RDSRRGPPPE EP <b>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.</b></p>
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

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- 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.

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Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
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Grade:	custom-made
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## Target Details

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Target:	SPHK1
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Alternative Name:	Sphk1 ( <a href="#">SPHK1 Products</a> )
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Background:	<p>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 (PubMed:17346996, PubMed:21084291, PubMed:25417698, PubMed:29662056, PubMed:33334894). 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:9726979). 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 (By similarity). In response to TNF and in parallel to NF-kappa-B activation, negatively regulates RANTES induction through p38 MAPK signaling pathway (By similarity). Involved in endocytic membrane trafficking induced by sphingosine, recruited to dilate endosomes, also plays a role</p>
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## Target Details

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on later stages of endosomal maturation and membrane fusion independently of its kinase activity (PubMed:27806293, PubMed:28049734). In Purkinje cells, seems to be also involved in the regulation of autophagosome-lysosome fusion upon VEGFA (PubMed:25417698).

{ECO:0000250|UniProtKB:Q9NYA1, ECO:0000269|PubMed:16118219,

ECO:0000269|PubMed:21084291, ECO:0000269|PubMed:25417698,

ECO:0000269|PubMed:27806293, ECO:0000269|PubMed:28049734,

ECO:0000269|PubMed:33334894, ECO:0000269|PubMed:9726979,

ECO:0000305|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:0000269|PubMed:29662056}.

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Molecular Weight: 42.4 kDa

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UniProt: [Q8CI15](#)

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Pathways: [VEGF Signaling](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months