Datasheet for ABIN7546081

SGPP1 Protein (AA 1-441) (His tag)

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Overview

Quantity:	1 mg
Target:	SGPP1
Protein Characteristics:	AA 1-441
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SGPP1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SGPP1 Protein expressed in mammalian cells.
Sequence:	MSLRQRLAQL VGRLQDPQKV ARFQRLCGVE APPRRSADRR EDEKAEAPLA GDPRLRGRQP GAPGGPQPPG SDRNQCPAKP DGGGAPNGVR NGLAAELGPA SPRRAGALRR NSLTGEEGQL ARVSNWPLYC LFCFGTELGN ELFYILFFPF WIWNLDPLVG RRLVVIWVLV MYLGQCTKDI IRWPRPASPP VVKLEVFYNS EYSMPSTHAM SGTAIPISMV LLTYGRWQYP LIYGLILIPC WCSLVCLSRI YMGMHSILDI IAGFLYTILI LAVFYPFVDL IDNFNQTHKY APFIIIGLHL ALGIFSFTLD TWSTSRGDTA EILGSGAGIA CGSHVTYNMG LVLDPSLDTL PLAGPPITVT LFGKAILRIL IGMVFVLIIR DVMKKITIPL ACKIFNIPCD DIRKARQHME VELPYRYITY GMVGFSITFF VPYIFFFIGI S **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.

Product Details

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:	SGPP1
Alternative Name:	SGPP1 (SGPP1 Products)
Background:	Sphingosine-1-phosphate phosphatase 1 (SPPase1) (Spp1) (hSPP1) (hSPPase1) (EC 3.1.3.-) (Sphingosine-1-phosphatase 1) (Sphingosine-1-phosphate phosphohydrolase 1) (SPP-1),FUNCTION: Specifically dephosphorylates sphingosine 1-phosphate (S1P), dihydro-S1P, and phyto-S1P. Does not act on ceramide 1-phosphate, lysophosphatidic acid or phosphatidic acid (PubMed:16782891). Sphingosine-1-phosphate phosphatase activity is needed for efficient recycling of sphingosine into the sphingolipid synthesis pathway (PubMed:12815058, PubMed:11756451, PubMed:16782891). Regulates the intracellular levels of the bioactive sphingolipid metabolite S1P that regulates diverse biological processes acting both as an extracellular receptor ligand or as an intracellular second messenger (PubMed:11756451, PubMed:12815058, PubMed:16782891). Involved in efficient ceramide synthesis from exogenous sphingoid bases. Converts S1P to sphingosine, which is readily metabolized to ceramide via ceramide synthase. In concert with sphingosine kinase 2 (SphK2), recycles sphingosine into ceramide through a phosphorylation/dephosphorylation cycle (By similarity).

Target Details

	Regulates endoplasmic-to-Golgi trafficking of ceramides, resulting in the regulation of ceramide levels in the endoplasmic reticulum, preferentially long-chain ceramide species, and influences the anterograde membrane transport of both ceramide and proteins from the endoplasmic reticulum to the Golgi apparatus (PubMed:16782891). The modulation of intracellular ceramide levels in turn regulates apoptosis (By similarity). Via S1P levels, modulates resting tone, intracellular Ca(2+) and myogenic vasoconstriction in resistance arteries (PubMed:18583713). Also involved in unfolded protein response (UPR) and ER stress-induced autophagy via regulation of intracellular S1P levels (PubMed:20798685, PubMed:18583713). Involved in the regulation of epidermal homeostasis and keratinocyte differentiation (By similarity). {ECO:0000250|UniProtKB:Q9JI99, ECO:0000269|PubMed:11756451, ECO:0000269|PubMed:12815058, ECO:0000269|PubMed:16782891, ECO:0000269|PubMed:18583713, ECO:0000269|PubMed:20798685}.
Molecular Weight:	49.1 kDa
UniProt:	Q9BX95

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

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