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# Datasheet for ABIN3106206 SGPP1 Protein (AA 1-441) (Strep Tag)



Overview

Quantity:	1 mg
Target:	SGPP1
Protein Characteristics:	AA 1-441
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SGPP1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

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 Strep-Tag is based on experience s 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.
Characteristics:	Key Benefits:

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- · Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALICE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.

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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require posttranslational modifications.
- During lysate production, the cell wall and other cellular components that are not required for
  protein production are removed, leaving only the protein production machinery and the
  mitochondria to drive the reaction. During our lysate completion steps, the additional
  components needed for protein production (amino acids, cofactors, etc.) are added to
  produce something that functions like a cell, but without the constraints of a living system all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

- 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
- Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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Product Details	
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## 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).
	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

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Target Details	
UniProt:	Q9BX95
Application Details	
Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALICE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)