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Datasheet for ABIN3123897

SMPD4 Protein (AA 1-823) (Strep Tag)

Overview

Quantity:	1 mg
Target:	SMPD4
Protein Characteristics:	AA 1-823
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMPD4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MAFPHLQQPS FLLASLKADS INKPFAQRCQ DLVKVIEDFP AKELHAVFPW LVESIFGSLD GVLVGWNLRC LQGRVNPVEY STAMEFLDPS GPMMLVYKL QAEDYNFDFP VSCLPGPVKA SIQENVLPDS PLYHNKVQFP PTGGLGLNLA LNPFEYYMFY FALSLSQKP MSMTLHVRTS DCAYFTLVDR YLSWFLPTEG SVPPPLCSSP GGSSPSPAPR TPAMPFASYG LHTSLLKRHI SHQTSVNADP ASHEIWRSET LLQVFVEMWL HHYSLEMYQK MQSPHAKLEV LHYRLTVSSA LHSPAQPSLQ ALHAYQESFT PTEEHVLVVR LLLKHLHAFa NSLKPQDQASP SAHSHATSPL EEFKRAAVPR FVQQKLYVFL QHCFGHWPLD ATFRVLEMW LSYLQPWRYA PEKQAQGSDP QPRCVSEKWA PFIQENLLMY TKLFVSFLNR ALRTDLVSPK NALMVFRVAK VFAQPNLAEM IQKGEQLFLE PELIIPHRQH RLFTVTTSFL SPWPPVVTDA SFKVKSHVYS LEGQDCKYTP MFGPEIRTLV LRLAQLITQA KQTAKSISDQ YVESPTGRSF LSWLTFG LTD TNSCYPANDL DEIGQDSIRK TDEYLEKALE YLRQIFRLSE AQLAQLTLAL GSARDENGKQ QLPDCIVGEE GLILTPLGRY QINGLRRFE IEYQGDLELQ PIRSYEITSL VRALFRLSSA INRRFAGQMA
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ALCSRNDFLG SFCRYHLTEP ALSNRHLLSP VGRRQVTNPA RGPRLSLRFL GSYRTL LLLL
MAFFVASLFC IGPLSCSLLL VLGYYLYAIA MTLLTERGKL HQL

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:

- 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 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!

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.

Product Details

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. 2. 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.
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:	SMPD4
Alternative Name:	Smpd4 (SMPD4 Products)
Background:	Sphingomyelin phosphodiesterase 4 (EC 3.1.4.12) (Neutral sphingomyelinase 3) (nSMase-3) (nSMase3) (Neutral sphingomyelinase III),FUNCTION: Catalyzes the hydrolysis of membrane sphingomyelin to form phosphorylcholine and ceramide (PubMed:25180167). It has a relevant role in the homeostasis of membrane sphingolipids, thereby influencing membrane integrity, and endoplasmic reticulum organization and function. May sensitize cells to DNA damage-induced apoptosis. In skeletal muscle, mediates TNF-stimulated oxidant production (PubMed:25180167). {ECO:0000250 UniProtKB:Q9NXXE4, ECO:0000269 PubMed:25180167}.
Molecular Weight:	93.3 kDa
UniProt:	Q6ZPR5

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.

Application Details

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)