Datasheet for ABIN3084516

SCP2 Protein (AA 1-547) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	SCP2
Protein Characteristics:	AA 1-547
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SCP2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MSSSPWEPAT LRRVFVVGVG MTKFVKPGAE NSRDYPDLAE EAGKKALADA QIPYSAVDQA CVGYVFGDST CGQRAIYHSL GMTGIPIINV NNNCATGSTA LFMARQLIQG GVAECVLALG FEKMSKGSLG IKFSDRTIPT DKHVDLLINK YGLSAHPVAP QMFGYAGKEH MEKYGTKIEH FAKIGWKNHK HSVNNPYSQF QDEYSLDEVM ASKEVFDFLT ILQCCPTSDG AAAAILASEA FVQKYGLQSK AVEILAQEMM TDLPSSFEEK SIIKMVGFDM SKEAARKCYE KSGLTPNDID VIELHDCFST NELLTYEALG LCPEGQGATL VDRGDNTYGG KWVINPSGGL ISKGHPLGAT GLAQCAELCW QLRGEAGKRQ VPGAKVALQH NLGIGGAVVV TLYKMGFPEA ASSFRTHQIE AVPTSSASDG FKANLVFKEI EKKLEEEGEQ FVKKIGGIFA FKVKDGPGGK EATWVVDVKN GKGSVLPNSD KKADCTITMA DSDFLALMTG KMNPQSAFFQ GKLKITGNMG LAMKLQNLQL QPGNAKL **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.

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.

Product Details

	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)

Target Details

Target:	SCP2
Alternative Name:	SCP2 (SCP2 Products)
Background:	Sterol carrier protein 2 (SCP-2) (Acetyl-CoA C-myristoyltransferase) (EC 2.3.1.155) (Non-specific lipid-transfer protein) (NSL-TP) (Propanoyl-CoA C-acyltransferase) (EC 2.3.1.176) (SCP-2/3-oxoacyl-CoA thiolase) (SCP-2/thiolase) (EC 2.3.1.16) (SCP-chi) (SCPX) (Sterol carrier protein X) (SCP-X),FUNCTION: [Isoform SCPx]: Plays a crucial role in the peroxisomal oxidation of branched-chain fatty acids (PubMed:10706581). Catalyzes the last step of the peroxisomal beta-oxidation of branched chain fatty acids and the side chain of the bile acid intermediates di- and trihydroxycoprostanic acids (DHCA and THCA) (PubMed:10706581). Also active with medium and long straight chain 3-oxoacyl-CoAs. Stimulates the microsomal conversion of 7-dehydrocholesterol to cholesterol and transfers phosphatidylcholine and 7-dehydrocholesterol between membrances, in vitro (By similarity). Isoforms SCP2 and SCPx cooperate in peroxisomal oxidation of certain naturally occurring tetramethyl-branched fatty acyl-CoAs (By similarity). {ECO:0000250|UniProtKB:P11915, ECO:0000250|UniProtKB:P32020, ECO:0000269|PubMed:10706581}., FUNCTION: [Isoform SCP2]: Mediates the transfer of all common phospholipids, cholesterol and gangliosides from the endoplasmic reticulum to the plasma membrane. May play a role in regulating steroidogenesis (PubMed:17157249, PubMed:8300590, PubMed:7642518). Stimulates the microsomal conversion of 7-dehydrocholesterol to cholesterol (By similarity). Also binds fatty acids and fatty acyl Coenzyme A (CoA) such as phytanoyl-CoA. Involved in the regulation phospholipid synthesis in endoplasmic reticulum enhancing the incorporation of exogenous fatty acid into glycerides. Seems to stimulate the rate-limiting step in phosphatidic acid formation mediated by GPAT3. Isoforms SCP2 and SCPx cooperate in peroxisomal oxidation of certain naturally occurring tetramethyl-branched fatty acyl-CoAs (By similarity). {ECO:0000250|UniProtKB:P11915, ECO:0000250|UniProtKB:P32020, ECO:0000269|PubMed:17157249, ECO:0000269|PubMed:7642518, ECO:0000269|PubMed:8300590}.
Molecular Weight:	59.0 kDa

Target Details

UniProt:	P22307
Pathways:	C21-Steroid Hormone Metabolic Process, Monocarboxylic Acid Catabolic Process

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)