Datasheet for ABIN3132944

SCD Protein (AA 1-355) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SCD
Protein Characteristics:	AA 1-355
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SCD protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MPAHMLQEIS SSYTTTTTIT APPSGNEREK VKTVPLHLEE DIRPEMKEDI HDPTYQDEEG PPPKLEYVWR NIILMVLLHL GGLYGIILVP SCKLYTCLFG IFYYMTSALG ITAGAHRLWS HRTYKARLPL RIFLIIANTM AFQNDVYEWA RDHRAHHKFS ETHADPHNSR RGFFFSHVGW LLVRKHPAVK EKGGKLDMSD LKAEKLVMFQ RRYYKPGLLL MCFILPTLVP WYCWGETFVN SLFVSTFLRY TLVLNATWLV NSAAHLYGYR PYDKNIQSRE NILVSLGAVG EGFHNYHHTF PFDYSASEYR WHINFTTFFI DCMAALGLAY DRKKVSKATV LARIKRTGDG SHKSS **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:

Product Details

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	SCD

Target Details

Alternative Name:	Scd1 (SCD Products)
Background:	Acyl-CoA desaturase 1 (EC 1.14.19.1) (Delta(9)-desaturase 1) (Delta-9 desaturase 1) (Fatty acid desaturase 1) (Stearoyl-CoA desaturase 1),FUNCTION: Stearoyl-CoA desaturase that utilizes O(2) and electrons from reduced cytochrome b5 to introduce the first double bond into saturated fatty acyl-CoA substrates. Catalyzes the insertion of a cis double bond at the Delta-9 position into fatty acyl-CoA substrates including palmitoyl-CoA and stearoyl-CoA (PubMed:11500518, PubMed:11533264, PubMed:16275639, PubMed:16443825, PubMed:26098370). Gives rise to a mixture of 16:1 and 18:1 unsaturated fatty acids (PubMed:11500518, PubMed:11533264, PubMed:16443825, PubMed:26098370). Plays an important role in lipid biosynthesis (PubMed:17127673, PubMed:10899171, PubMed:11500518, PubMed:11441127, PubMed:11533264, PubMed:12177411, PubMed:26098370). Plays an important role in regulating the expression of genes that are involved in lipogenesis and in regulating mitochondrial fatty acid oxidation (PubMed:12177411, PubMed:17127673, PubMed:24356954, PubMed:24295027). Plays an important role in body energy homeostasis (PubMed:17127673, PubMed:15210843, PubMed:24295027, PubMed:24356954). Contributes to the biosynthesis of membrane phospholipids, cholesterol esters and triglycerides (PubMed:10899171, PubMed:11500518, PubMed:11441127, PubMed:11533264, PubMed:12177411, PubMed:15210843, PubMed:26098370). Required for normal development of sebaceous glands (PubMed:17738154, PubMed:11533264). Required for the biosynthesis of normal levels of Delta-9 unsaturated fatty acids and 1-alkyl-2,3-diacylglycerol in the Harderian gland (PubMed:11500518). Required for normal production of meibum, an oily material that prevents drying of the cornea (PubMed:11533264). {ECO:0000269|PubMed:10899171, ECO:0000269|PubMed:11441127, ECO:0000269|PubMed:11500518, ECO:0000269|PubMed:11533264, ECO:0000269|PubMed:12177411, ECO:0000269|PubMed:15210843, ECO:0000269|PubMed:16275639, ECO:0000269|PubMed:16443825, ECO:0000269|PubMed:17127673, ECO:0000269|PubMed:26098370, ECO:0000305|PubMed:24295027, ECO:0000305|PubMed:24356954}.
Molecular Weight:	41.0 kDa
UniProt:	P13516
Pathways:	Brown Fat Cell Differentiation

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

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