Datasheet for ABIN3134197

ABCD1 Protein (AA 1-736) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ABCD1
Protein Characteristics:	AA 1-736
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCD1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MPVLSTPRPS RVTTLKRTAV VLALTAYGVH KIYPLVRQCL TPARGPQVPA GEPTQEASGA TATKAGMNRV FLQRLLALLR LLFPRVLCRE TGLLALHSAA LVSRTFLSVY VARLDGRLAR CIVRKDPRAF SWQLLQWLLI ALPATFINSA IRYLEGQLAL SFRSRLVAHA YGLYFSQQTY YRVSNMDGRL RNPDQSLTED VVAFAASVAH LYSNLTKPLL DVAVTSYTLL RAARSRGAGT AWPSAIAGLV VFLTANVLRA FSPKFGELVA EEARRKGELR YMHSRVVANS EEIAFYGGHE VELALLQHSY QDLASQINLI LLERLWYVML EQFLMKYVWS ASGLLMVAVP IITATGYAES DSEAMKKAAL EMKEEELVSE RTEAFTIARN LLTAAADATE RIMSSYKEVT ELAGYTARVY EMFQVFEDVK HCRFKRTGDL EEAQAGPGVM VQSGVHVEGP LKIQGQVVDV EQGIICENIP IITPTGEVVV ASLNIRVEEG MHLLITGPNG CGKSSLFRIL GGLWPTYSGV LYKPPPQRMF YIPQRPYMSV GSLRDQVIYP DSAEDMRRKG CSEQQLEAIL GIVHLRHILQ REGGWEAVCD WKDVLSGGEK QRIGMARMFY HRPKYALLDE CTSAVSIDVE GKIFQAAKDA GIALLSITHR

PSLWKYHTHL LQFDGEGGWK FEKLDSAARL SLTEEKQRLE QQLAGIPKMQ GRLQELRQIL GEAAAPVQPL VPGVPT

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 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®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	ABCD1
Alternative Name:	Abcd1 (ABCD1 Products)
Background:	ATP-binding cassette sub-family D member 1 (EC 3.1.2.-) (EC 7.6.2.-) (Adrenoleukodystrophy protein) (ALDP),FUNCTION: ATP-dependent transporter of the ATP-binding cassette (ABC) family involved in the transport of very long chain fatty acid (VLCFA)-CoA from the cytosol to the peroxisome lumen. Has fatty acyl-CoA thioesterase (ACOT) and ATPase activities. Coupled to the ATP-dependent transporter activity has also a fatty acyl-CoA thioesterase activity (ACOT) and hydrolyzes VLCFA-CoA into VLCFA prior their ATP-dependent transport into peroxisomes, the ACOT activity is essential during this transport process (By similarity). Thus, plays a role in regulation of VLCFAs and energy metabolism namely, in the degradation and biosynthesis of fatty acids by beta-oxidation, mitochondrial function and microsomal fatty acid elongation (PubMed:9126326, PubMed:9418970, PubMed:9256488, PubMed:18854420, PubMed:23123468, PubMed:23604518, PubMed:25255441, PubMed:25583114, PubMed:26108493). Involved in several processes, namely, controls the active myelination phase by negatively regulating the microsomal fatty acid elongation activity and may also play a role in axon and myelin maintenance (PubMed:11875044, PubMed:15489218, PubMed:26108493). Controls also the cellular response to oxidative stress by regulating mitochondrial functions such as mitochondrial oxidative phosphorylation and depolarization (PubMed:18344354, PubMed:22521832, PubMed:23604518, PubMed:25583114). And finally controls the inflammatory response by positively regulating peroxisomal beta-oxidation of VLCFAs (PubMed:18723473). {ECO:0000250|UniProtKB:P33897, ECO:0000269|PubMed:11875044, ECO:0000269|PubMed:15489218, ECO:0000269|PubMed:18344354, ECO:0000269|PubMed:18723473, ECO:0000269|PubMed:18854420, ECO:0000269|PubMed:22521832, ECO:0000269|PubMed:23123468, ECO:0000269|PubMed:23604518, ECO:0000269|PubMed:25255441, ECO:0000269|PubMed:25583114, ECO:0000269|PubMed:26108493, ECO:0000269|PubMed:9126326, ECO:0000269|PubMed:9256488, ECO:0000269|PubMed:9418970}.
Molecular Weight:	81.9 kDa

Target Details

UniProt:	P48410
Pathways:	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. 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