Datasheet for ABIN7551842

ABCD1 Protein (AA 1-745) (His tag)

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Overview

Quantity:	1 mg
Target:	ABCD1
Protein Characteristics:	AA 1-745
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCD1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant ABCD1 Protein expressed in mammalian cells.
Sequence:	MPVLSRPRPW RGNTLKRTAV LLALAAYGAH KVYPLVRQCL APARGLQAPA GEPTQEASGV AAAKAGMNRV FLQRLLWLLR LLFPRVLCRE TGLLALHSAA LVSRTFLSVY VARLDGRLAR CIVRKDPRAF GWQLLQWLLI ALPATFVNSA IRYLEGQLAL SFRSRLVAHA YRLYFSQQTY YRVSNMDGRL RNPDQSLTED VVAFAASVAH LYSNLTKPLL DVAVTSYTLL RAARSRGAGT AWPSAIAGLV VFLTANVLRA FSPKFGELVA EEARRKGELR YMHSRVVANS EEIAFYGGHE VELALLQRSY QDLASQINLI LLERLWYVML EQFLMKYVWS ASGLLMVAVP IITATGYSES DAEAVKKAAL EKKEEELVSE RTEAFTIARN LLTAAADAIE RIMSSYKEVT ELAGYTARVH EMFQVFEDVQ RCHFKRPREL EDAQAGSGTI GRSGVRVEGP LKIRGQVVDV EQGIICENIP IVTPSGEVVV ASLNIRVEEG MHLLITGPNG CGKSSLFRIL GGLWPTYGGV LYKPPPQRMF YIPQRPYMSV GSLRDQVIYP DSVEDMQRKG YSEQDLEAIL DVVHLHHILQ REGGWEAMCD WKDVLSGGEK QRIGMARMFY HRPKYALLDE CTSAVSIDVE GKIFQAAKDA GIALLSITHR PSLWKYHTHL LQFDGEGGWK FEKLDSAARL SLTEEKQRLE QQLAGIPKMQ RRLQELCQIL

Product Details

	GEAVAPAHVP APSPQGPGGL QGAST **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, 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 (PubMed:11248239, PubMed:15682271, PubMed:16946495, PubMed:18757502, PubMed:21145416, PubMed:23671276, PubMed:29397936, PubMed:33500543). 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

Target Details

	process (PubMed:33500543, PubMed:29397936). 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:23671276, PubMed:21145416). 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. Controls also the cellular response to oxidative stress by regulating mitochondrial functions such as mitochondrial oxidative phosphorylation and depolarization. And finally controls the inflammatory response by positively regulating peroxisomal beta-oxidation of VLCFAs (By similarity). {ECO:0000250|UniProtKB:P48410, ECO:0000269|PubMed:11248239, ECO:0000269|PubMed:15682271, ECO:0000269|PubMed:16946495, ECO:0000269|PubMed:18757502, ECO:0000269|PubMed:21145416, ECO:0000269|PubMed:23671276, ECO:0000269|PubMed:29397936, ECO:0000269|PubMed:33500543}.
Molecular Weight:	82.9 kDa
UniProt:	P33897
Pathways:	Monocarboxylic Acid Catabolic Process

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

