Datasheet for ABIN3116599

MFSD2A Protein (AA 1-543) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	MFSD2A
Protein Characteristics:	AA 1-543
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MFSD2A protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MAKGEGAESG SAAGLLPTSI LQSTERPAQV KKEPKKKKQQ LSVCNKLCYA LGGAPYQVTG CALGFFLQIY LLDVAQKDEE VVFCFSSFQV GPFSASIILF VGRAWDAITD PLVGLCISKS PWTCLGRLMP WIIFSTPLAV IAYFLIWFVP DFPHGQTYWY LLFYCLFETM VTCFHVPYSA LTMFISTEQT ERDSATAYRM TVEVLGTVLG TAIQGQIVGQ ADTPCFQDLN SSTVASQSAN HTHGTTSHRE TQKAYLLAAG VIVCIYIICA VILILGVREQ REPYEAQQSE PIAYFRGLRL VMSHGPYIKL ITGFLFTSLA FMLVEGNFVL FCTYTLGFRN EFQNLLLAIM LSATLTIPIW QWFLTRFGKK TAVYVGISSA VPFLILVALM ESNLIITYAV AVAAGISVAA AFLLPWSMLP DVIDDFHLKQ PHFHGTEPIF FSFYVFFTKF ASGVSLGIST LSLDFAGYQT RGCSQPERVK FTLNMLVTMA PIVLILLGLL LFKMYPIDEE RRRQNKKALQ ALRDEASSSG CSETDSTELA SIL

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.

Product Details

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.
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

Product Details

	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:	MFSD2A
Alternative Name:	MFSD2A (MFSD2A Products)
Background:	Sodium-dependent lysophosphatidylcholine symporter 1 (NLS1) (Sodium-dependent LPC symporter 1) (Major facilitator superfamily domain-containing protein 2A) (HsMFSD2A) (MFSD2a),FUNCTION: Sodium-dependent lysophosphatidylcholine (LPC) symporter, which plays an essential role for blood-brain barrier formation and function (PubMed:24828040, PubMed:34135507, PubMed:32572202). Specifically expressed in endothelium of the blood-brain barrier of micro-vessels and transports LPC into the brain (By similarity). Transport of LPC is essential because it constitutes the major mechanism by which docosahexaenoic acid (DHA), an omega-3 fatty acid that is essential for normal brain growth and cognitive function, enters the brain (PubMed:34135507, PubMed:26005868). Transports LPC carrying long-chain fatty acids such LPC oleate and LPC palmitate with a minimum acyl chain length of 14 carbons (By similarity). Does not transport docosahexaenoic acid in unesterified fatty acid (By similarity). Specifically required for blood-brain barrier formation and function, probably by mediating lipid transport (By similarity). Not required for central nervous system vascular morphogenesis (By similarity). Acts as a transporter for tunicamycin, an inhibitor of asparagine-linked glycosylation (PubMed:21677192). In placenta, acts as a receptor for ERVFRD-1/syncytin-2 and is required for trophoblast fusion (PubMed:18988732, PubMed:23177091). {ECO:0000250|UniProtKB:Q9DA75, ECO:0000269|PubMed:18988732, ECO:0000269|PubMed:21677192, ECO:0000269|PubMed:23177091, ECO:0000269|PubMed:24828040, ECO:0000269|PubMed:26005868, ECO:0000269|PubMed:34135507}.
Molecular Weight:	60.2 kDa
UniProt:	Q8NA29

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. 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)

