



Datasheet for ABIN3115723

SLC27A1 Protein (AA 1-646) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SLC27A1 (FATP1)
Protein Characteristics:	AA 1-646
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC27A1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MRAPGAGAAS VVSLALLWLL GLPWTWSAAA ALGVYVGGG WRFLRIVCKT ARDLFGLSV
LIRVRLELRR HQRAGHTIPR IFQAVVQRQP ERLALVDAGT GECWTFAQLD AYSNAVANLF
RQLGFAPGDV VAIFLEGRPE FVGLWLGLAK AGMEAALLNV NLRREPLAFC LGTSGAKALI
FGGEMVAAVA EVSGHLGKSL IKFCSGDLGP EGILPDTHLL DPLLKEASTA PLAQIPSKGM
DDRLFYIYTS GTTGLPKAAI VVHSRYRMA AFGHHAYRMQ AADVLYDCLP LYHSAGNIIG
VGQCLIYGLT VLRKKFSAS RFWDDCIKYN CTVVQYIGEI CRYLLKQPVR EAERRHRVRL
AVGNGLRPAI WEEFTERFGV RQIGEFYGAT ECNCSIANMD GKVGS CGFNS RILPHVYPIR
LVKVNEDTME LLRDAQGLCI PCQAGEPGLL VGQINQQDPL RRFDDGYVSES ATSKKIAHSV
FSKGDSAYLS GDVLVMDDELG YMYFRDRSGD TFRWRGENVS TTEVEGVLSR LLGQTDVAVY
GVAVPGVEGK AGMAAVADPH SLLDPNAIQ ELQKVLAPYA RPIFLRLLPQ VDTTGTFKIQ
KTRLQREGFD PRQTS DRLFF LDLKQGHYLP LNEAVYTRIC SGAFAL

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
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Product Details

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 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)

Grade: Crystallography grade

Target Details

Target: SLC27A1 (FATP1)

Alternative Name: SLC27A1 ([FATP1 Products](#))

Background: Long-chain fatty acid transport protein 1 (Arachidonate--CoA ligase) (EC 6.2.1.15) (Fatty acid transport protein 1) (FATP-1) (Long-chain-fatty-acid--CoA ligase) (EC 6.2.1.3) (Solute carrier family 27 member 1) (Very long-chain acyl-CoA synthetase) (EC 6.2.1.-),FUNCTION: Mediates the import of long-chain fatty acids (LCFA) into the cell by facilitating their transport at the plasma membrane (PubMed:12556534, PubMed:20530735, PubMed:21395585, PubMed:28178239). Also functions as an acyl-CoA ligase catalyzing the ATP-dependent formation of fatty acyl-CoA using LCFA and very-long-chain fatty acids (VLCFA) as substrates, which prevents fatty acid efflux from cells and might drive more fatty acid uptake. May act directly as a bona fide transporter, or alternatively, in a cytoplasmic or membrane-associated multimeric protein complex to trap and draw fatty acids towards accumulation. Plays a pivotal role in regulating available LCFA substrates from exogenous sources in tissues undergoing high levels of beta-oxidation or triglyceride synthesis. May be involved in regulation of cholesterol metabolism (By similarity). Probably involved in fatty acid transport across the blood barrier (PubMed:21395585). {ECO:0000250|UniProtKB:Q60714, ECO:0000269|PubMed:12556534, ECO:0000269|PubMed:20530735, ECO:0000269|PubMed:21395585, ECO:0000269|PubMed:28178239}.

Molecular Weight: 71.1 kDa

UniProt: [Q6PCB7](#)

Pathways: [Inositol Metabolic Process](#), [Regulation of Lipid Metabolism by PPARalpha](#)

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)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process