Datasheet for ABIN3120620

Fat Storage-Inducing Transmembrane Protein 2 (FITM2) (AA 1-262) protein (Strep Tag)

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Overview

Quantity:	1 mg
Target:	Fat Storage-Inducing Transmembrane Protein 2 (FITM2)
Protein Characteristics:	AA 1-262
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MEHLERCAWF LRGTLVRATV RRHLPWALVA AMLAGSVVKE LSPLPESYLS NKRNVLNVYF VKLAWAWTVC LLLPFIALTN YHLTGKTSLV LRRLSTLLVG TAIWYICTAL FSNIEHYTGS CYQSPALEGI RQEHRSKQQC HREGGFWHGF DISGHSFLLT FCALMIVEEM AVLHEVKTDR GHHLHAAITT LVVALGFLTF IWVWMFLCTA VYFHDLTQKV FGTMFGLLGW YGTYGYWYLK SFSPGLPPQS CSLTLKRDTY KK **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 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)

Product Details

Grade:	Crystallography grade

Target Details

Target:	Fat Storage-Inducing Transmembrane Protein 2 (FITM2)
Alternative Name:	Fitm2 (FITM2 Products)
Background:	Acyl-coenzyme A diphosphatase FITM2 (EC 3.6.1.-) (Fat storage-inducing transmembrane protein 2) (Fat-inducing protein 2),FUNCTION: Fatty acyl-coenzyme A (CoA) diphosphatase that hydrolyzes fatty acyl-CoA to yield acyl-4'-phosphopantetheine and adenosine 3',5'-bisphosphate (By similarity). Preferentially hydrolyzes unsaturated long-chain acyl-CoA substrates such as oleoyl-CoA/(9Z)-octadecenoyl-CoA and arachidonoyl-CoA/(5Z,8Z,11Z,14Z)-eicosatetraenoyl-CoA in the endoplasmic reticulum (ER) lumen (By similarity). This catalytic activity is required for maintaining ER structure and for lipid droplets (LDs) biogenesis, which are lipid storage organelles involved in maintaining lipid and energy homeostasis (PubMed:18160536, PubMed:26504167) (By similarity). Directly binds to diacylglycerol (DAGs) and triacylglycerol, which is also important for LD biogenesis (PubMed:22106267) (By similarity). May support directional budding of nacent LDs from the ER into the cytosol by reducing DAG levels at sites of LD formation (By similarity). Plays a role in the regulation of cell morphology and cytoskeletal organization (By similarity). {ECO:0000255|HAMAP-Rule:MF_03230, ECO:0000269|PubMed:18160536, ECO:0000269|PubMed:22106267, ECO:0000269|PubMed:26504167}.
Molecular Weight:	30.0 kDa
UniProt:	P59266

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

Application Details

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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)