

Datasheet for ABIN3111099

MFN2 Protein (AA 1-757) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	MFN2
Protein Characteristics:	AA 1-757
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MFN2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MSLLFSRCNS IVTVKKNKRH MAEVNASPLK HFVTAKKKIN GIFEQLGAYI QESATFLEDT YRNAELDPVT TEEQVLVDVG YLSKVRGISE VLARRHMKVA FFGRTSNGKS TVINAMLWDK VLP SGIGHTT NCFLRVEGTD GHEAFLTEG SEEKRS AKTV NQLAHALHQD KQLHAGSLVS VMWPNSKCPL LKDDLVLMD S PGIDVTTELD SWIDKFCLDA DVFVLVANSE STLMQTEKHF FHKVSERLSR PNIFILNNRW DASASEPEYM EEVRRQHMER CTSFLVDELG VVDRSQAGDR IFFVSAKEVL NARIQKAQGM PEGGGALAEG FQVRMFEFQN FERRFEECIS QSAVKTKFEQ HTVRAKQIAE AVR LIMDSLH MAAREQQVYC EEMREERQDR LKFIDKQLEL LAQDYKLRIK QITEEVERQV STAMAEIIR LSVLVDDYQM DFHPSPVVLK VYKNELHRHI EEGLGRNMSD RCSTAITNSL QTMQQDMIDG LKPLLPSVSR SQIDMLVPRQ CFSLNLDLNC DKLCADFQED IEFHSLGWT MLVNRFLGPK NSRRALMGYN DQVQRPIPLT PANPSMPPLP QGSLTQEEFM VSMVTGLASL TSRTSMGILV VGGVWKA VG WRLIALSFGL YGLLYVYERL TWTTKAKERA FKRQFVEHAS EKLQLVISYT GSNCSHQVQQ ELSGTFAHLC QQVDVTREN L EQEIAAMNKK
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IEVLDSLQSK AKLLRNKAGW LDSELMFMTH QYLQPSR

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

Product Details

(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)
Grade:	Crystallography grade

Target Details

Target:	MFN2
Alternative Name:	MFN2 (MFN2 Products)
Background:	<p>Mitofusin-2 (EC 3.6.5.-) (Transmembrane GTPase MFN2),FUNCTION: Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:11181170, PubMed:11950885, PubMed:26214738, PubMed:28114303, PubMed:19889647). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:28114303). Overexpression induces the formation of mitochondrial networks (PubMed:28114303). Membrane clustering requires GTPase activity and may involve a major rearrangement of the coiled coil domains (Probable). Plays a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes (By similarity). Plays an important role in the regulation of vascular smooth muscle cell proliferation (By similarity). Involved in the clearance of damaged mitochondria via selective autophagy (mitophagy) (PubMed:23620051). Is required for PRKN recruitment to dysfunctional mitochondria (PubMed:23620051). Involved in the control of unfolded protein response (UPR) upon ER stress including activation of apoptosis and autophagy during ER stress (By similarity). Acts as an upstream regulator of EIF2AK3 and suppresses EIF2AK3 activation under basal conditions (By similarity).</p> <p>{ECO:0000250 UniProtKB:Q80U63, ECO:0000250 UniProtKB:Q8R500, ECO:0000269 PubMed:11181170, ECO:0000269 PubMed:11950885, ECO:0000269 PubMed:19889647, ECO:0000269 PubMed:23620051, ECO:0000269 PubMed:26085578, ECO:0000269 PubMed:26214738, ECO:0000269 PubMed:28114303, ECO:0000305}.</p>
Molecular Weight:	86.4 kDa

Target Details

UniProt:	O95140
Pathways:	Skeletal Muscle Fiber Development

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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