Datasheet for ABIN3111099

MFN2 Protein (AA 1-757) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MFN2
Protein Characteristics:	AA 1-757
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MFN2 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MSLLFSRCNS IVTVKKNKRH MAEVNASPLK HFVTAKKKIN GIFEQLGAYI QESATFLEDT YRNAELDPVT TEEQVLDVKG YLSKVRGISE VLARRHMKVA FFGRTSNGKS TVINAMLWDK VLPSGIGHTT NCFLRVEGTD GHEAFLLTEG SEEKRSAKTV NQLAHALHQD KQLHAGSLVS VMWPNSKCPL LKDDLVLMDS PGIDVTTELD SWIDKFCLDA DVFVLVANSE STLMQTEKHF FHKVSERLSR PNIFILNNRW DASASEPEYM EEVRRQHMER CTSFLVDELG VVDRSQAGDR IFFVSAKEVL NARIQKAQGM PEGGGALAEG FQVRMFEFQN FERRFEECIS QSAVKTKFEQ HTVRAKQIAE AVRLIMDSLH MAAREQQVYC EEMREERQDR LKFIDKQLEL LAQDYKLRIK QITEEVERQV STAMAEEIRR LSVLVDDYQM DFHPSPVVLK VYKNELHRHI EEGLGRNMSD RCSTAITNSL QTMQQDMIDG LKPLLPVSVR SQIDMLVPRQ CFSLNYDLNC DKLCADFQED IEFHFSLGWT MLVNRFLGPK NSRRALMGYN DQVQRPIPLT PANPSMPPLP QGSLTQEEFM VSMVTGLASL TSRTSMGILV VGGVVWKAVG WRLIALSFGL YGLLYVYERL TWTTKAKERA FKRQFVEHAS EKLQLVISYT GSNCSHQVQQ ELSGTFAHLC QQVDVTRENL EQEIAAMNKK

Product Details

	IEVLDSLQSK AKLLRNKAGW LDSELNMFTH QYLQPSR **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human MFN2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot. 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot. 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered

Product Details

Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	MFN2
Alternative Name:	MFN2 (MFN2 Products)
Background:	Essential transmembrane GTPase, which mediates mitochondrial fusion. Fusion of mitochondria occurs in many cell types and constitutes an important step in mitochondria morphology, which is balanced between fusion and fission. MFN2 acts independently of the cytoskeleton. It therefore plays a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes. Overexpression induces the formation of mitochondrial networks. Plays an important role in the regulation of vascular smooth muscle cell proliferation. Involved in the clearance of damaged mitochondria via selective autophagy (mitophagy). Is required for PARK2 recruitment to dysfunctional mitochondria. Involved in the control of unfolded protein response (UPR) upon ER stress including activation of apoptosis and autophagy during ER stress. Acts as an upstream regulator of EIF2AK3 and suppresses EIF2AK3 activation under basal conditions. {ECO:0000269|PubMed:11181170, ECO:0000269|PubMed:11950885, ECO:0000269|PubMed:15322553, ECO:0000269|PubMed:23620051, ECO:0000269|PubMed:23921378}.
Molecular Weight:	87.6 kDa Including tag.
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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images

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