Datasheet for ABIN3119430

AFG3L2 Protein (AA 1-797) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	AFG3L2
Protein Characteristics:	AA 1-797
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AFG3L2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MAHRCLRLWG RGGCWPRGLQ QLLVPGGVGP GEQPCLRTLY RFVTTQARAS RNSLLTDIIA AYQRFCSRPP KGFEKYFPNG KNGKKASEPK EVMGEKKESK PAATTRSSGG GGGGGGKRGG KKDDSHWWSR FQKGDIPWDD KDFRMFFLWT ALFWGGVMFY LLLKRSGREI TWKDFVNNYL SKGVVDRLEV VNKRFVRVTF TPGKTPVDGQ YVWFNIGSVD TFERNLETLQ QELGIEGENR VPVVYIAESD GSFLLSMLPT VLIIAFLLYT IRRGPAGIGR TGRGMGGLFS VGETTAKVLK DEIDVKFKDV AGCEEAKLEI MEFVNFLKNP KQYQDLGAKI PKGAILTGPP GTGKTLLAKA TAGEANVPFI TVSGSEFLEM FVGVGPARVR DLFALARKNA PCILFIDEID AVGRKRGRGN FGGQSEQENT LNQLLVEMDG FNTTTNVVIL AGTNRPDILD PALLRPGRFD RQIFIGPPDI KGRASIFKVH LRPLKLDSTL EKDKLARKLA SLTPGFSGAD VANVCNEAAL IAARHLSDSI NQKHFEQAIE RVIGGLEKKT QVLQPEEKKT VAYHEAGHAV AGWYLEHADP LLKVSIIPRG KGLGYAQYLP KEQYLYTKEQ LLDRMCMTLG GRVSEEIFFG RITTGAQDDL RKVTQSAYAQ

	IVQFGMNEKV GQISFDLPRQ GDMVLEKPYS EATARLIDDE VRILINDAYK RTVALLTEKK ADVEKVALLL LEKEVLDKND MVELLGPRPF AEKSTYEEFV EGTGSLDEDT SLPEGLKDWN KEREKEKEEP PGEKVAN **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 in one-step affinity chromatography • 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 try to ensure that you receive soluble 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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression

Product Details

	System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	AFG3L2
Alternative Name:	AFG3L2 (AFG3L2 Products)
Background:	AFG3-like protein 2 (EC 3.4.24.-) (Paraplegin-like protein),FUNCTION: ATP-dependent protease which is essential for axonal and neuron development. In neurons, mediates degradation of SMDT1/EMRE before its assembly with the uniporter complex, limiting the availability of SMDT1/EMRE for MCU assembly and promoting efficient assembly of gatekeeper subunits with MCU (PubMed:27642048). Required for paraplegin (SPG7) maturation (PubMed:30252181). After its cleavage by mitochondrial-processing peptidase (MPP), it converts paraplegin into a proteolytically active mature form (By similarity). Required for the maturation of PINK1 into its 52 kDa mature form after its cleavage by mitochondrial-processing peptidase (MPP) (PubMed:22354088, PubMed:30252181). Involved in the regulation of OMA1-dependent processing of OPA1 (PubMed:32600459, PubMed:30252181). Contributes to the proteolytic degradation of GHITM upon hyperpolarization of mitochondria (PubMed:35912435). Progressive GHITM degradation upon persistent hyperpolarization leads to respiratory complex I degradation and broad reshaping of the mitochondrial proteome by AFG3L2 (PubMed:35912435). {ECO:0000250|UniProtKB:Q8JZQ2, ECO:0000269|PubMed:22354088, ECO:0000269|PubMed:27642048, ECO:0000269|PubMed:30252181, ECO:0000269|PubMed:32600459, ECO:0000269|PubMed:35912435}.
Molecular Weight:	88.6 kDa
UniProt:	Q9Y4W6
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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months