Datasheet for ABIN3133943

DNM2 Protein (AA 1-870) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	DNM2
Protein Characteristics:	AA 1-870
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNM2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MGNRGMEELI PLVNKLQDAF SSIGQSCHLD LPQIAVVGGQ SAGKSSVLEN FVGRDFLPRG SGIVTRRPLI LQLIFSKTEY AEFLHCKSKK FTDFDEVRQE IEAETDRVTG TNKGISPVPI NLRVYSPHVL NLTLIDLPGI TKVPVGDQPP DIEYQIKDMI LQFISRESSL ILAVTPANMD LANSDALKLA KEVDPQGLRT IGVITKLDLM DEGTDARDVL ENKLLPLRRG YIGVVNRSQK DIEGKKDIRA ALAAERKFFL SHPAYRHMAD RMGTPHLQKT LNQQLTNHIR ESLPTLRSKL QSQLLSLEKE VEEYKNFRPD DPTRKTKALL QMVQQFGVDF EKRIEGSGDQ VDTLELSGGA RINRIFHERF PFELVKMEFD EKDLRREISY AIKNIHGVRT GLFTPDLAFE AIVKKQVVKL KEPCLKCVDL VIQELISTVR QCTSKLSSYP RLREETERIV TTYIREREGR TKDQILLLID IEQSYINTNH EDFIGFANAQ QRSTQLNKKR AIPNQGEILV IRRGWLTINN ISLMKGGSKE YWFVLTAESL SWYKDEEEKE KKYMLPLDNL KIRDVEKGFM SNKHVFAIFN TEQRNVYKDL RQIELACDSQ EDVDSWKASF LRAGVYPEKD QAENEDGAQE NTFSMDPQLE RQVETIRNLV DSYVAIINKS

IRDLMPKTIM HLMINNTKAF IHHELLAYLY SSADQSSLME ESAEQAQRRD DMLRMYHALK EALNIIGDIS TSTVSTPVPP PVDDTWLQNT SGHSPTPQRR PVSSVHPPGR PPAVRGPTPG PPLIPMPVGA TSSFSAPPIP SRPGPQSVFA NNDPFSAPPQ IPSRPARIPP GIPPGVPSRR APAAPSRPTI IRPAEPSLLD

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.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	DNM2
Alternative Name:	Dnm2 (DNM2 Products)
Background:	Dynamin-2 (EC 3.6.5.5) (Dynamin UDNM),FUNCTION: Catalyzes the hydrolysis of GTP and utilizes this energy to mediate vesicle scission at plasma membrane during endocytosis and filament remodeling at many actin structures during organization of the actin cytoskeleton (By similarity). Plays an important role in vesicular trafficking processes, namely clathrin-mediated endocytosis (CME), exocytic and clathrin-coated vesicle from the trans-Golgi network, and PDGF stimulated macropinocytosis (PubMed:18923138). During vesicular trafficking process, associates to the membrane, through lipid binding, and self-assembles into ring-like structure through oligomerization to form a helical polymer around the vesicle membrane and leading to vesicle scission (By similarity). Plays a role in organization of the actin cytoskeleton by mediating arrangement of stress fibers and actin bundles in podocytes (By similarity). During organization of the actin cytoskeleton, self-assembles into ring-like structure that directly bundles actin filaments to form typical membrane tubules decorated with dynamin spiral polymers (PubMed:33113375). Self-assembly increases GTPase activity and the GTP hydrolysis causes the rapid depolymerization of dynamin spiral polymers, and results in dispersion of actin bundles (By similarity). Remodels, through its interaction with CTTN, bundled actin filaments in a GTPase-dependent manner and plays a role in orchestrating the global actomyosin cytoskeleton (By similarity). The interaction with CTTN stabilizes the interaction of DNM2 and actin filaments and stimulates the intrinsic GTPase activity that results in actin filament-barbed ends and increases the sensitivity of filaments in bundles to the actin depolymerizing factor, CFL1 (By similarity). Plays a role in the autophagy process, by participating in the formation of ATG9A vesicles destined for the autophagosomes through its interaction with SNX18, by mediating recycling endosome scission leading to autophagosome release through MAP1LC3B interaction (By similarity). Also regulates maturation of apoptotic cell corpse-containing phagosomes by recruiting PIK3C3 to the phagosome membrane (PubMed:18425118). Also plays a role in cytokinesis (PubMed:18923138). May participate in centrosome cohesion through its interaction with TUBG1 (By similarity). Plays a role in the

Target Details

	regulation of neuron morphology, axon growth and formation of neuronal growth cones (By similarity). Involved in membrane tubulation (By similarity). {ECO:0000250|UniProtKB:P39052, ECO:0000250|UniProtKB:P50570, ECO:0000269|PubMed:18425118, ECO:0000269|PubMed:18923138, ECO:0000269|PubMed:33113375}.
Molecular Weight:	98.1 kDa
UniProt:	P39054
Pathways:	Toll-Like Receptors Cascades

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. 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.

Handling

Expiry Date:	12 months