Datasheet for ABIN7553687

Dynamin 1-Like Protein (DNM1L) (AA 1-736) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	Dynamin 1-Like (DNM1L)
Protein Characteristics:	AA 1-736
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Dynamin 1-Like protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DNM1L Protein expressed in mammalian cells.
Sequence:	MEALIPVINK LQDVFNTVGA DIIQLPQIVV VGTQSSGKSS VLESLVGRDL LPRGTGIVTR RPLILQLVHV SQEDKRKTTG EENGVEAEEW GKFLHTKNKL YTDFDEIRQE IENETERISG NNKGVSPEPI HLKIFSPNVV NLTLVDLPGM TKVPVGDQPK DIELQIRELI LRFISNPNSI ILAVTAANTD MATSEALKIS REVDPDGRRT LAVITKLDLM DAGTDAMDVL MGRVIPVKLG IIGVVNRSQL DINNKKSVTD SIRDEYAFLQ KKYPSLANRN GTKYLARTLN RLLMHHIRDC LPELKTRINV LAAQYQSLLN SYGEPVDDKS ATLLQLITKF ATEYCNTIEG TAKYIETSEL CGGARICYIF HETFGRTLES VDPLGGLNTI DILTAIRNAT GPRPALFVPE VSFELLVKRQ IKRLEEPSLR CVELVHEEMQ RIIQHCSNYS TQELLRFPKL HDAIVEVVTC LLRKRLPVTN EMVHNLVAIE LAYINTKHPD FADACGLMNN NIEEQRRNRL ARELPSAVSR DKSSKVPSAL APASQEPSPA ASAEADGKLI QDSRRETKNV ASGGGGVGDG VQEPTTGNWR GMLKTSKAEE LLAEEKSKPI PIMPASPQKG HAVNLLDVPV PVARKLSARE QRDCEVIERL IKSYFLIVRK NIQDSVPKAV MHFLVNHVKD TLQSELVGQL YKSSLLDDLL TESEDMAQRR KEAADMLKAL

Product Details

	QGASQIIAEI RETHLW **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	Dynamin 1-Like (DNM1L)
Alternative Name:	DNM1L (DNM1L Products)
Background:	Dynamin-1-like protein (EC 3.6.5.5) (Dnm1p/Vps1p-like protein) (DVLP) (Dynamin family member proline-rich carboxyl-terminal domain less) (Dymple) (Dynamin-like protein) (Dynamin-like protein 4) (Dynamin-like protein IV) (HdynIV) (Dynamin-related protein 1),FUNCTION: Functions in mitochondrial and peroxisomal division (PubMed:9570752, PubMed:9786947, PubMed:11514614, PubMed:12499366, PubMed:17301055, PubMed:17553808, PubMed:17460227, PubMed:18695047, PubMed:18838687, PubMed:19638400, PubMed:19411255, PubMed:19342591, PubMed:23921378, PubMed:23283981, PubMed:23530241, PubMed:27145933, PubMed:29478834, PubMed:32484300,

PubMed:32439975, PubMed:27145208, PubMed:26992161, PubMed:27301544, PubMed:27328748). Mediates membrane fission through oligomerization into membrane-associated tubular structures that wrap around the scission site to constrict and sever the mitochondrial membrane through a GTP hydrolysis-dependent mechanism (PubMed:23530241, PubMed:23584531, PubMed:33850055). The specific recruitment at scission sites is mediated by membrane receptors like MFF, MIEF1 and MIEF2 for mitochondrial membranes (PubMed:23921378, PubMed:23283981, PubMed:29899447). While the recruitment by the membrane receptors is GTP-dependent, the following hydrolysis of GTP induces the dissociation from the receptors and allows DNM1L filaments to curl into closed rings that are probably sufficient to sever a double membrane (PubMed:29899447). Acts downstream of PINK1 to promote mitochondrial fission in a PRKN-dependent manner (PubMed:32484300). Plays an important role in mitochondrial fission during mitosis (PubMed:19411255, PubMed:26992161, PubMed:27301544, PubMed:27328748). Through its function in mitochondrial division, ensures the survival of at least some types of postmitotic neurons, including Purkinje cells, by suppressing oxidative damage (By similarity). Required for normal brain development, including that of cerebellum (PubMed:17460227, PubMed:27145208, PubMed:26992161, PubMed:27301544, PubMed:27328748). Facilitates developmentally regulated apoptosis during neural tube formation (By similarity). Required for a normal rate of cytochrome c release and caspase activation during apoptosis, this requirement may depend upon the cell type and the physiological apoptotic cues (By similarity). Required for formation of endocytic vesicles (PubMed:9570752, PubMed:20688057, PubMed:23792689). Proposed to regulate synaptic vesicle membrane dynamics through association with BCL2L1 isoform Bcl-X(L) which stimulates its GTPase activity in synaptic vesicles, the function may require its recruitment by MFF to clathrin-containing vesicles (PubMed:17015472, PubMed:23792689). Required for programmed necrosis execution (PubMed:22265414). Rhythmic control of its activity following phosphorylation at Ser-637 is essential for the circadian control of mitochondrial ATP production (PubMed:29478834). {ECO:0000250|UniProtKB:Q8K1M6, ECO:0000269|PubMed:11514614, ECO:0000269|PubMed:12499366, ECO:0000269|PubMed:17015472, ECO:0000269|PubMed:17301055, ECO:0000269|PubMed:17460227, ECO:0000269|PubMed:17553808, ECO:0000269|PubMed:18695047, ECO:0000269|PubMed:18838687, ECO:0000269|PubMed:19342591, ECO:0000269|PubMed:19411255, ECO:0000269|PubMed:19638400, ECO:0000269|PubMed:20688057, ECO:0000269|PubMed:22265414, ECO:0000269|PubMed:23283981, ECO:0000269|PubMed:23530241, ECO:0000269|PubMed:23584531, ECO:0000269|PubMed:23792689,

Target Details

	ECO:0000269|PubMed:23921378, ECO:0000269|PubMed:26992161, ECO:0000269|PubMed:27145208, ECO:0000269|PubMed:27145933, ECO:0000269|PubMed:27301544, ECO:0000269|PubMed:27328748, ECO:0000269|PubMed:29478834, ECO:0000269|PubMed:29899447, ECO:0000269|PubMed:32439975, ECO:0000269|PubMed:32484300, ECO:0000269|PubMed:33850055, ECO:0000269|PubMed:9570752, ECO:0000269|PubMed:9786947}., FUNCTION: [Isoform 1]: Inhibits peroxisomal division when overexpressed. {ECO:0000269|PubMed:12618434}., FUNCTION: [Isoform 4]: Inhibits peroxisomal division when overexpressed. {ECO:0000269|PubMed:12618434}.
Molecular Weight:	81.9 kDa
UniProt:	O00429

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months