Datasheet for ABIN7553740

DNM2 Protein (AA 1-870) (His tag)

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Overview

Quantity:	1 mg
Target:	DNM2
Protein Characteristics:	AA 1-870
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNM2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DNM2 Protein expressed in mammalian cells.
Sequence:	MGNRGMEELI PLVNKLQDAF SSIGQSCHLD LPQIAVVGGQ SAGKSSVLEN FVGRDFLPRG SGIVTRRPLI LQLIFSKTEH AEFLHCKSKK FTDFDEVRQE IEAETDRVTG TNKGISPVPI NLRVYSPHVL NLTLIDLPGI TKVPVGDQPP DIEYQIKDMI LQFISRESSL ILAVTPANMD LANSDALKLA KEVDPQGLRT IGVITKLDLM DEGTDARDVL ENKLLPLRRG YIGVVNRSQK DIEGKKDIRA ALAAERKFFL SHPAYRHMAD RMGTPHLQKT LNQQLTNHIR ESLPALRSKL QSQLLSLEKE VEEYKNFRPD DPTRKTKALL QMVQQFGVDF EKRIEGSGDQ VDTLELSGGA RINRIFHERF PFELVKMEFD EKDLRREISY AIKNIHGVRT GLFTPDLAFE AIVKKQVVKL KEPCLKCVDL VIQELINTVR 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 ESADQAQRRD DMLRMYHALK

Product Details

	EALNIIGDIS TSTVSTPVPP PVDDTWLQSA SSHSPTPQRR PVSSIHPPGR PPAVRGPTPG PPLIPVPVGA AASFSAPPIP SRPGPQSVFA NSDLFPAPPQ IPSRPVRIPP GIPPGVPSRR PPAAPSRPTI IRPAEPSLLD **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:	DNM2
Alternative Name:	DNM2 (DNM2 Products)
Background:	Dynamin-2 (EC 3.6.5.5) (Dynamin 2) (Dynamin II),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 (PubMed:33713620, PubMed:15731758, PubMed:19623537, PubMed:34744632, PubMed:19605363). 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:33713620, PubMed:15731758, PubMed:19623537). 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 (PubMed:17636067, PubMed:34744632, PubMed:36445308). 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 (By similarity). 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 (PubMed:19605363). 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 (PubMed:29437695), by mediating recycling endosome scission leading to autophagosome release through MAP1LC3B interaction (PubMed:32315611, PubMed:29437695). Also regulates maturation of apoptotic cell corpse-containing phagosomes by recruiting PIK3C3 to the phagosome membrane (By similarity). Also plays a role in cytokinesis (By similarity). May participate in centrosome cohesion through its interaction with TUBG1 (By similarity). Plays a role in the regulation of neuron morphology, axon growth and formation of neuronal growth cones (By similarity). Involved in membrane tubulation (PubMed:24135484). {ECO:0000250|UniProtKB:P39052, ECO:0000250|UniProtKB:P39054, ECO:0000269|PubMed:15731758, ECO:0000269|PubMed:17636067, ECO:0000269|PubMed:19605363, ECO:0000269|PubMed:19623537, ECO:0000269|PubMed:24135484, ECO:0000269|PubMed:29437695, ECO:0000269|PubMed:32315611, ECO:0000269|PubMed:33713620, ECO:0000269|PubMed:34744632, ECO:0000269|PubMed:36445308}.
Molecular Weight:	98.1 kDa
UniProt:	P50570
Pathways:	Toll-Like Receptors Cascades

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