Datasheet for ABIN7549280

MCOLN1 Protein (AA 1-580) (His tag)

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Overview

Quantity:	1 mg
Target:	MCOLN1
Protein Characteristics:	AA 1-580
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MCOLN1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant MCOLN1 Protein expressed in mammalian cells.
Sequence:	MTAPAGPRGS ETERLLTPNP GYGTQAGPSP APPTPPEEED LRRRLKYFFM SPCDKFRAKG RKPCKLMLQV VKILVVTVQL ILFGLSNQLA VTFREENTIA FRHLFLLGYS DGADDTFAAY TREQLYQAIF HAVDQYLALP DVSLGRYAYV RGGGDPWTNG SGLALCQRYY HRGHVDPAND TFDIDPMVVT DCIQVDPPER PPPPPSDDLT LLESSSSYKN LTLKFHKLVN VTIHFRLKTI NLQSLINNEI PDCYTFSVLI TFDNKAHSGR IPISLETQAH IQECKHPSVF QHGDNSFRLL FDVVVILTCS LSFLLCARSL LRGFLLQNEF VGFMWRQRGR VISLWERLEF VNGWYILLVT SDVLTISGTI MKIGIEAKNL ASYDVCSILL GTSTLLVWVG VIRYLTFFHN YNILIATLRV ALPSVMRFCC CVAVIYLGYC FCGWIVLGPY HVKFRSLSMV SECLFSLING DDMFVTFAAM QAQQGRSSLV WLFSQLYLYS FISLFIYMVL SLFIALITGA YDTIKHPGGA GAEESELQAY IAQCQDSPTS GKFRRGSGSA CSLLCCCGRD PSEEHSLLVN **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**

Product Details

	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:	MCOLN1
Alternative Name:	MCOLN1 (MCOLN1 Products)
Background:	Mucolipin-1 (ML1) (MG-2) (Mucolipidin) (Transient receptor potential channel mucolipin 1) (TRPML1),FUNCTION: Nonselective cation channel probably playing a role in the regulation of membrane trafficking events and of metal homeostasis (PubMed:11013137, PubMed:12459486, PubMed:15336987, PubMed:14749347, PubMed:29019983, PubMed:27623384). Proposed to play a major role in Ca(2+) release from late endosome and lysosome vesicles to the cytoplasm, which is important for many lysosome-dependent cellular events, including the fusion and trafficking of these organelles, exocytosis and autophagy (PubMed:11013137, PubMed:12459486, PubMed:15336987, PubMed:14749347, PubMed:25720963, PubMed:29019983, PubMed:27623384). Required for efficient uptake of large particles in macrophages in which Ca(2+) release from the lysosomes triggers lysosomal

Target Details

	exocytosis. May also play a role in phagosome-lysosome fusion (By similarity). Involved in lactosylceramide trafficking indicative for a role in the regulation of late endocytic membrane fusion/fission events (PubMed:16978393). By mediating lysosomal Ca(2+) release is involved in regulation of mTORC1 signaling and in mTOR/TFEB-dependent lysosomal adaptation to environmental cues such as nutrient levels (PubMed:25720963, PubMed:25733853, PubMed:27787197). Seems to act as lysosomal active oxygen species (ROS) sensor involved in ROS-induced TFEB activation and autophagy (PubMed:27357649). Functions as a Fe(2+) permeable channel in late endosomes and lysosomes (PubMed:18794901). Proposed to play a role in zinc homeostasis probably implicating its association with TMEM163 (PubMed:25130899) In adaptive immunity, TRPML2 and TRPML1 may play redundant roles in the function of the specialized lysosomes of B cells (By similarity). {ECO:0000250|UniProtKB:Q99J21, ECO:0000269|PubMed:12459486, ECO:0000269|PubMed:14749347, ECO:0000269|PubMed:15336987, ECO:0000269|PubMed:16978393, ECO:0000269|PubMed:18794901, ECO:0000269|PubMed:25130899, ECO:0000269|PubMed:25720963, ECO:0000269|PubMed:25733853, ECO:0000269|PubMed:27357649, ECO:0000269|PubMed:27623384, ECO:0000269|PubMed:27787197, ECO:0000269|PubMed:29019983, ECO:0000305|PubMed:11013137}., FUNCTION: May contribute to cellular lipase activity within the late endosomal pathway or at the cell surface which may be involved in processes of membrane reshaping and vesiculation, especially the growth of tubular structures. However, it is not known, whether it conveys the enzymatic activity directly, or merely facilitates the activity of an associated phospholipase. {ECO:0000305|PubMed:21256127}.
Molecular Weight:	65.0 kDa
UniProt:	Q9GZU1
Pathways:	Transition Metal Ion Homeostasis

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