

MCOLN1 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13551b**Specification**

MCOLN1 Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [O9GZU1](#)**MCOLN1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 57192**Other Names**

Mucolipin-1, MG-2, Mucolipidin, MCOLN1, ML4

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13551b was selected from the C-term region of MCOLN1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MCOLN1 Antibody (C-term) Blocking peptide - Protein Information**Name** MCOLN1 {ECO:0000303|PubMed:25720963, ECO:0000312|HGNC:HGNC:13356}**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).

target="_blank">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 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).

Cellular Location

Late endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Cell projection, phagocytic cup {ECO:0000250|UniProtKB:Q99J21}. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q99J21}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Delivery from the trans-Golgi to lysosomes seems to occur mainly in a direct intracellular manner without intermediate delivery to the plasma membrane (PubMed:16497227) Under normal conditions, restricted to intracellular compartments so that only a very minor proportion is present at the cell membrane (PubMed:12459486, PubMed:18794901, PubMed:28112729, PubMed:29019983)

Tissue Location

Widely expressed in adult and fetal tissues.

MCOLN1 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

MCOLN1 Antibody (C-term) Blocking peptide - Images

MCOLN1 Antibody (C-term) Blocking peptide - Background

This gene encodes a member of the transient receptor potential (TRP) cation channel gene family. The transmembrane protein localizes to intracellular vesicular membranes including lysosomes, and functions in the late endocytic pathway and in the regulation of lysosomal exocytosis. The channel is permeable to Ca(2+), Fe(2+), Na(+), K(+), and H(+), and is modulated by changes in Ca(2+) concentration. Mutations in this gene result in mucopolipidosis type IV.

MCOLN1 Antibody (C-term) Blocking peptide - References

Eichelsdoerfer, J.L., et al. J. Biol. Chem. 285(45):34304-34308(2010)Curcio-Morelli, C., et al. J. Cell. Physiol. 222(2):328-335(2010)Vergarajauregui, S., et al. J. Biol. Chem. 284(52):36357-36366(2009)Ballif, B.A., et al. Mol. Cell Proteomics 3(11):1093-1101(2004)LaPlante, J.M., et al. FEBS Lett. 532 (1-2), 183-187 (2002) :