

mucolipin 1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57229**Specification****mucolipin 1 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O9GZU1
Reactivity	Rat, Pig, Cat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	65022

mucolipin 1 Polyclonal Antibody - Additional Information**Gene ID** 57192**Other Names**

Mucolipin-1, ML1, MG-2, Mucolipidin, Transient receptor potential channel mucolipin 1, TRPML1, MCOLN1 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=13356 target="_blank">HGNC:13356)

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

mucolipin 1 Polyclonal Antibody - 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:<http://www.uniprot.org/citations/11013137> target="_blank">11013137, PubMed:<http://www.uniprot.org/citations/12459486> target="_blank">12459486, PubMed:<http://www.uniprot.org/citations/14749347> target="_blank">14749347, PubMed:<http://www.uniprot.org/citations/15336987> target="_blank">15336987, PubMed:<http://www.uniprot.org/citations/18794901> target="_blank">18794901, PubMed:<http://www.uniprot.org/citations/25720963> target="_blank">25720963, PubMed:<http://www.uniprot.org/citations/27623384> target="_blank">27623384, PubMed:<http://www.uniprot.org/citations/29019983> target="_blank">29019983). Acts as a Ca(2+)-permeable cation channel with inwardly rectifying activity (PubMed:<http://www.uniprot.org/citations/25720963> target="_blank">25720963, PubMed:<http://www.uniprot.org/citations/29019983> target="_blank">29019983). 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:14749347, PubMed:15336987, PubMed:25720963, PubMed:27623384, PubMed:29019983). 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). Also functions as a Fe(2+) permeable channel in late endosomes and lysosomes (PubMed:18794901). Also permeable to Mg(2+), Na(+), K(+) and Cs(+) (By similarity). 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.

mucolipin 1 Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

mucolipin 1 Polyclonal Antibody - Images