

**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
Primary Accession	<a href="#">Q9GZU1</a>
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 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=13356" target="\_blank">HGNC:13356</a>)

##### 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:<a href="http://www.uniprot.org/citations/11013137" target="\_blank">11013137</a>, PubMed:<a href="http://www.uniprot.org/citations/12459486" target="\_blank">12459486</a>, PubMed:<a href="http://www.uniprot.org/citations/15336987" target="\_blank">15336987</a>, PubMed:<a href="http://www.uniprot.org/citations/14749347" target="\_blank">14749347</a>, PubMed:<a href="http://www.uniprot.org/citations/29019983" target="\_blank">29019983</a>, PubMed:<a href="http://www.uniprot.org/citations/27623384" target="\_blank">27623384</a>). 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:<a href="http://www.uniprot.org/citations/11013137" target="\_blank">11013137</a>, PubMed:<a href="http://www.uniprot.org/citations/12459486" target="\_blank">12459486</a>, PubMed:<a href="http://www.uniprot.org/citations/15336987" target="\_blank">15336987</a>, PubMed:<a href="http://www.uniprot.org/citations/14749347"

target="\_blank">>14749347</a>, PubMed:<a href="http://www.uniprot.org/citations/25720963" target="\_blank">25720963</a>, PubMed:<a href="http://www.uniprot.org/citations/29019983" target="\_blank">29019983</a>, PubMed:<a href="http://www.uniprot.org/citations/27623384" target="\_blank">27623384</a>). 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:<a href="http://www.uniprot.org/citations/16978393" target="\_blank">16978393</a>). 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:<a href="http://www.uniprot.org/citations/25720963" target="\_blank">25720963</a>, PubMed:<a href="http://www.uniprot.org/citations/25733853" target="\_blank">25733853</a>, PubMed:<a href="http://www.uniprot.org/citations/27787197" target="\_blank">27787197</a>). Seems to act as lysosomal active oxygen species (ROS) sensor involved in ROS-induced TFEB activation and autophagy (PubMed:<a href="http://www.uniprot.org/citations/27357649" target="\_blank">27357649</a>). Functions as a Fe(2+) permeable channel in late endosomes and lysosomes (PubMed:<a href="http://www.uniprot.org/citations/18794901" target="\_blank">18794901</a>). Proposed to play a role in zinc homeostasis probably implicating its association with TMEM163 (PubMed:<a href="http://www.uniprot.org/citations/25130899" target="\_blank">25130899</a>) 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**