

**MCOLN3 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13868b**

**Specification**

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**MCOLN3 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q8TDD5</a>
Other Accession	<a href="#">NP_060768.8</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	64248
Antigen Region	517-546

**MCOLN3 Antibody (C-term) - Additional Information**

**Gene ID** 55283

**Other Names**

Mucolipin-3, MCOLN3

**Target/Specificity**

This MCOLN3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 517-546 amino acids from the C-terminal region of human MCOLN3.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MCOLN3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MCOLN3 Antibody (C-term) - Protein Information**

**Name** MCOLN3

**Function** Nonselective cation channel probably playing a role in the regulation of membrane

trafficking events. Acts as a  $\text{Ca}(2+)$ -permeable cation channel with inwardly rectifying activity (PubMed:[18369318](#), PubMed:[19497048](#), PubMed:[19522758](#), PubMed:[19885840](#), PubMed:[29106414](#)). Mediates release of  $\text{Ca}(2+)$  from endosomes to the cytoplasm, contributes to endosomal acidification and is involved in the regulation of membrane trafficking and fusion in the endosomal pathway (PubMed:[21245134](#)). Also permeable to  $\text{Mg}(2+)$ ,  $\text{Na}(+)$  and  $\text{K}(+)$  (By similarity). Does not seem to act as mechanosensory transduction channel in inner ear sensory hair cells. Proposed to play a critical role at the cochlear stereocilia ankle-link region during hair-bundle growth (By similarity). Involved in the regulation of autophagy (PubMed:[19522758](#)). Through association with GABARAPL2 may be involved in autophagosome formation possibly providing  $\text{Ca}(2+)$  for the fusion process (By similarity). Through a possible and probably tissue-specific heteromerization with MCOLN1 may be at least in part involved in many lysosome-dependent cellular events (PubMed:[19885840](#)). Possible heteromeric ion channel assemblies with TRPV5 show pharmacological similarity with TRPML3 (PubMed:[23469151](#)).

### Cellular Location

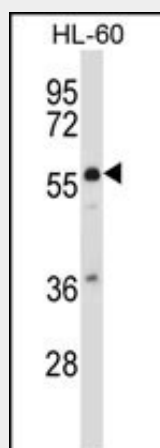
Cell membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Cytoplasmic vesicle, autophagosome membrane. Note=Recycles between the plasma membrane and intracellular compartments by a dynamin-dependent endocytic pathway (PubMed:[19522758](#)). Under normal conditions, only a very minor proportion is present at the cell membrane (PubMed:[19522758](#)). In the cochlea located at the base of stereocilia near the position of the ankle links (By similarity) {ECO:0000250|UniProtKB:Q8R4F0, ECO:0000269|PubMed:[19522758](#)}

### MCOLN3 Antibody (C-term) - 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](#)

### MCOLN3 Antibody (C-term) - Images



MCOLN3 Antibody (C-term) (Cat. #AP13868b) western blot analysis in HL-60 cell line lysates

(35ug/lane). This demonstrates the MCOLN3 antibody detected the MCOLN3 protein (arrow).

#### **MCOLN3 Antibody (C-term) - Background**

Mucolipins constitute a family of cation channel proteins with homologs in mouse, *Drosophila*, and *C. elegans*. Mutations in the human MCOLN1 gene (MIM 605248) cause mucopolidosis IV (MIM 262650).

#### **MCOLN3 Antibody (C-term) - References**

Kim, H.J., et al. *J. Biol. Chem.* 285(22):16513-16520(2010)  
Curcio-Morelli, C., et al. *J. Cell. Physiol.* 222(2):328-335(2010)  
Kim, H.J., et al. *Traffic* 10(8):1157-1167(2009)  
Martina, J.A., et al. *Traffic* 10(8):1143-1156(2009)  
Grimm, C., et al. *J. Biol. Chem.* 284(20):13823-13831(2009)