10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

mucolipin 3 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP57230

Specification

mucolipin 3 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q8TDD5
Reactivity	**Rat, Pig, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**64 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human mucolipin 3**
Epitope Specificity	**101-200/553**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Membrane.**
SIMILARITY	**Belongs to the transient receptor (TC 1.A.4) family. Polycystin subfamily. MCOLN1 sub-subfamily.**
SUBUNIT	**Forms multimeric complexes. Interacts with PDCD6.**
DISEASE	**Mucolipidosis type IV (MLIV) [MIM:252650]: Autosomal recessive lysosomal storage disorder characterized by severe psychomotor retardation and ophthalmologic abnormalities, including corneal opacity, retinal degeneration and strabismus. Storage bodies of lipids and water-soluble substances are seen by electron microscopy in almost every cell type of the patients. Most patients are unable to speak or walk independently and reach a maximal developmental level of 1-2 years. All patients have constitutive achlorhydia associated with a secondary elevation of serum gastrin levels. MLIV may be due to a defect in sorting and/or transport along the late endocytic pathway. MLIV is found at relatively high frequency among Ashkenazi Jews.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions

This gene encodes one of members of the mucolipin cation channel proteins. Mutation studies of the highly similar protein in mice have shown that the protein is found in cochlea hair cells, and mutant mice show early-onset hearing loss and balance problems. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]

mucolipin 3 Polyclonal Antibody - Additional Information

Gene ID 55283

Other Names
Mucolipin-3, Transient receptor potential channel mucolipin 3, TRPML3, MCOLN3

Target/Specificity
Widely expressed in adult and fetal tissues.

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

mucolipin 3 Polyclonal Antibody - Protein Information

Name MCOLN3

Function
Nonselective cation channel probably playing a role in the regulation of membrane trafficking events. Acts as a Ca(2+)-permeable cation channel with inwardly rectifying activity (PubMed:18369318, PubMed:19497048, PubMed:19522758, PubMed:19885840, PubMed:29106414). Mediates release of 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 Mg(2+), Na(+) and 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 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}

mucolipin 3 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 Cytomety
- Cell Culture

mucolipin 3 Polyclonal Antibody - Images