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OTOP1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11995c

Specification

OTOP1 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q7RTM1
Other Accession	Q7M734, Q80VM9, NP_819056.1
Reactivity	**Mouse**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**360-388**

OTOP1 Antibody (Center) - Additional Information

Gene ID 133060

Other Names
Otopetrin-1, OTOP1

Target/Specificity
This OTOP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 360-388 amino acids from the Central region of human OTOP1.

Dilution
WB~~1:1000
IHC-P~~1:10~50

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
OTOP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

OTOP1 Antibody (Center) - Protein Information

Name OTOP1 {ECO:0000303|PubMed:12651873, ECO:0000312|HGNC:HGNC:19656}

Function Proton-selective channel that specifically transports protons into cells

(PubMed:29371428). Proton channel activity is only weakly- sensitive to voltage (By similarity). Proton-selective channel activity is probably required in cell types that use changes in intracellular pH for cell signaling or to regulate biochemical or developmental processes (PubMed:29371428). In the vestibular system of the inner ear, required for the formation and function of otoconia, which are calcium carbonate crystals that sense gravity and acceleration (By similarity). Probably acts by maintaining the pH appropriate for formation of otoconia (By similarity). Regulates purinergic control of intracellular calcium in vestibular supporting cells (By similarity). May be involved in sour taste perception in sour taste cells by mediating entry of protons within the cytosol (By similarity). Also involved in energy metabolism, by reducing adipose tissue inflammation and protecting from obesity-induced metabolic dysfunction (By similarity).

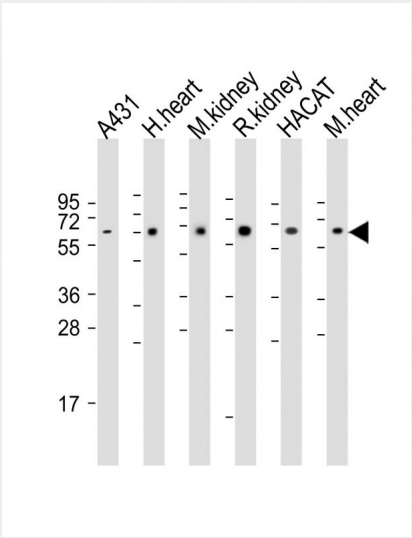
Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q80VM9}; Multi-pass membrane protein. Note=Detected in the gelatinous membrane overlying the inner ear macular epithelium {ECO:0000250|UniProtKB:Q80VM9}

OTOP1 Antibody (Center) - 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

OTOP1 Antibody (Center) - Images



All lanes : Anti-OTOP1 Antibody (Center) at 1:1000 dilution Lane 1: A431 whole cell lysate Lane 2: Human heart whole tissue lysate Lane 3: Mouse kidney whole tissue lysate Lane 4: Rat kidney whole tissue lysate Lane 5: HACAT whole cell lysate Lane 6: Mouse heart whole tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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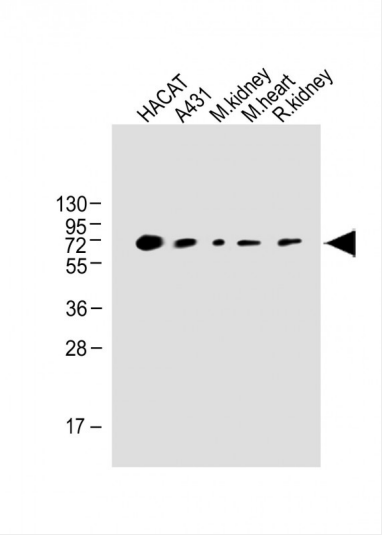

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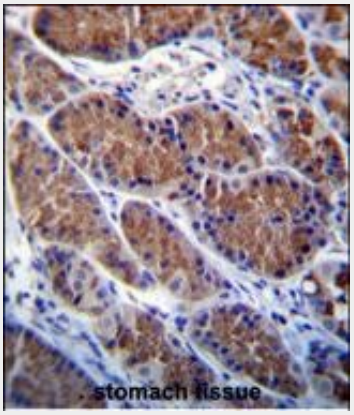

OTOP1 Antibody (Center) (Cat. #AP11995c)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of OTOP1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

OTOP1 Antibody (Center) - Background

OTOP1 is required for normal formation of otoconia in the inner ear. Inhibits P2Y purinoceptors. Modulates calcium homeostasis and influx of calcium in response to extracellular ATP (By similarity).

OTOP1 Antibody (Center) - References

Hurle, B., et al. Hum. Mol. Genet. 12(7):777-789(2003)