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# OTOP1 Antibody (Center) Blocking peptide

**Synthetic peptide**
**Catalog # BP11995c**

## Specification

### OTOP1 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q7RTM1

### OTOP1 Antibody (Center) Blocking peptide - Additional Information

**Gene ID** 133060

**Other Names**
Otopetrin-1, OTOP1

**Format**
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### OTOP1 Antibody (Center) Blocking peptide - Protein Information

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

**Function**
Proton-selective channel that specifically transports protons into cells (PubMed:<a href="http://www.uniprot.org/citations/29371428" target="_blank">29371428</a>). 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:<a href="http://www.uniprot.org/citations/29371428" target="_blank">29371428</a>). 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}

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## OTOP1 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

## OTOP1 Antibody (Center) Blocking peptide - Images

## OTOP1 Antibody (Center) Blocking peptide - 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) Blocking peptide - References

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