

**TRPM4 Antibody (Internal)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS11000****Specification**

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**TRPM4 Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	<a href="#">Q8TD43</a>
Reactivity	Human, Mouse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	134kDa KDa

**TRPM4 Antibody (Internal) - Additional Information****Gene ID** 54795**Other Names**

Transient receptor potential cation channel subfamily M member 4, hTRPM4, Calcium-activated non-selective cation channel 1, Long transient receptor potential channel 4, LTrpC-4, LTrpC4, Melastatin-4, TRPM4, LTRPC4

**Target/Specificity**

Human TRPM4. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

TRPM4 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**TRPM4 Antibody (Internal) - Protein Information****Name** TRPM4 ([HGNC:17993](#))**Synonyms** LTRPC4**Function**

Calcium-activated non selective (CAN) cation channel that mediates membrane depolarization (PubMed: [12015988](http://www.uniprot.org/citations/12015988), PubMed: [29211723](http://www.uniprot.org/citations/29211723), PubMed: [30528822](http://www.uniprot.org/citations/30528822)). While it is activated by increase in intracellular Ca(2+), it is impermeable to it (PubMed: [12015988](http://www.uniprot.org/citations/12015988)). Mediates transport of monovalent cations (Na(+) > K(+) > Cs(+) > Li(+)), leading to depolarize the membrane. It thereby plays a central role in cardiomyocytes, neurons from entorhinal cortex,

dorsal root and vomeronasal neurons, endocrine pancreas cells, kidney epithelial cells, cochlea hair cells etc. Participates in T-cell activation by modulating  $\text{Ca}^{2+}$  oscillations after T lymphocyte activation, which is required for NFAT-dependent IL2 production. Involved in myogenic constriction of cerebral arteries. Controls insulin secretion in pancreatic beta-cells. May also be involved in pacemaking or could cause irregular electrical activity under conditions of  $\text{Ca}^{2+}$  overload. Affects T-helper 1 (Th1) and T-helper 2 (Th2) cell motility and cytokine production through differential regulation of calcium signaling and NFATC1 localization. Enhances cell proliferation through up-regulation of the beta-catenin signaling pathway. Plays a role in keratinocyte differentiation (PubMed:<a href="http://www.uniprot.org/citations/30528822" target="\_blank">30528822</a>).

#### Cellular Location

[Isoform 1]: Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum. Golgi apparatus

#### Tissue Location

Widely expressed with a high expression in intestine and prostate. In brain, it is both expressed in whole cerebral arteries and isolated vascular smooth muscle cells Prominently expressed in Purkinje fibers. Expressed at higher levels in T-helper 2 (Th2) cells as compared to T-helper 1 (Th1) cells. Expressed in keratocytes (PubMed:30528822).

#### Volume

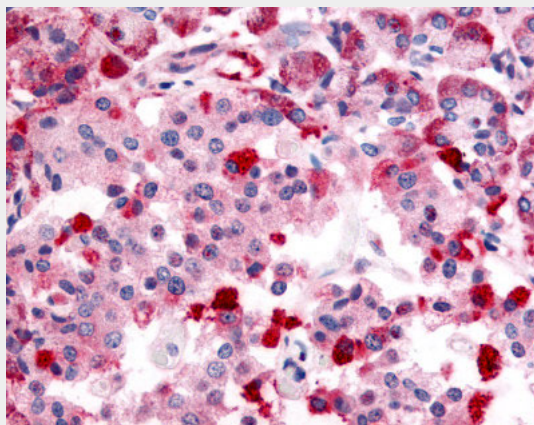
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#### TRPM4 Antibody (Internal) - Protocols

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](#)

#### TRPM4 Antibody (Internal) - Images



Anti-TRPM4 antibody ALS11000 IHC of human pancreas.

**TRPM4 Antibody (Internal) - Background**

Calcium-activated non selective (CAN) cation channel that mediates membrane depolarization. While it is activated by increase in intracellular  $\text{Ca}^{2+}$ , it is impermeable to it. Mediates transport of monovalent cations ( $\text{Na}^{+} > \text{K}^{+} > \text{Cs}^{+} > \text{Li}^{+}$ ), leading to depolarize the membrane. It thereby plays a central role in cardiomyocytes, neurons from entorhinal cortex, dorsal root and vomeronasal neurons, endocrine pancreas cells, kidney epithelial cells, cochlea hair cells etc. Participates in T-cell activation by modulating  $\text{Ca}^{2+}$  oscillations after T lymphocyte activation, which is required for NFAT-dependent IL2 production. Involved in myogenic constriction of cerebral arteries. Controls insulin secretion in pancreatic beta-cells. May also be involved in pacemaking or could cause irregular electrical activity under conditions of  $\text{Ca}^{2+}$  overload. Affects T-helper 1 (Th1) and T-helper 2 (Th2) cell motility and cytokine production through differential regulation of calcium signaling and NFATC1 localization. Enhances cell proliferation through up-regulation of the beta-catenin signaling pathway.

**TRPM4 Antibody (Internal) - References**

Xu X.-Z.S., et al. Proc. Natl. Acad. Sci. U.S.A. 98:10692-10697(2001).  
Launay P., et al. Cell 109:397-407(2002).  
Hofmann T., et al. Curr. Biol. 13:1153-1158(2003).  
Nilius B., et al. J. Biol. Chem. 278:30813-30820(2003).  
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