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TRPM4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP16061b

Specification

TRPM4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q8TD43

TRPM4 Antibody (C-term) Blocking Peptide - 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

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.

TRPM4 Antibody (C-term) Blocking Peptide - Protein Information

Name TRPM4 (HGNC:17993)

Synonyms LTRPC4

Function
Calcium-activated non selective (CAN) cation channel that mediates membrane depolarization (PubMed:12015988, PubMed:29211723, PubMed:30528822). While it is activated by increase in intracellular Ca(2+), it is impermeable to it (PubMed:12015988). Mediates transport of monovalent cations (Na(+) > K(+) > Cs(+) > Li(+)), leading to depolarize the membrane. It thereby plays a central role in cadiomyocytes, 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 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 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:30528822).

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).

TRPM4 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TRPM4 Antibody (C-term) Blocking Peptide - Images

TRPM4 Antibody (C-term) Blocking Peptide - Background

The protein encoded by this gene is a calcium-activatednonselective ion channel that mediates transport of monovalentcations across membranes, thereby depolarizing the membrane. Theactivity of the encoded protein increases with increasingintracellular calcium concentration, but this channel does nottransport calcium. Two transcript variants encoding differentisoforms have been found for this gene.

TRPM4 Antibody (C-term) Blocking Peptide - References

Liu, H., et al. Circ Cardiovasc Genet 3(4):374-385(2010)Yoo, J.C., et al. Biochem. Biophys. Res. Commun. 391(1):806-811(2010)Kruse, M., et al. J. Clin. Invest. 119(9):2737-2744(2009)Marigo, V., et al. Mol. Cell. Endocrinol. 299(2):194-203(2009)Park, J.Y., et al. Biochem. Biophys. Res. Commun. 368(3):677-683(2008)