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Anti-TRPM4 Picoband Antibody

Catalog # ABO12588

Specification

Anti-TRPM4 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q8TD43
Host	**Rabbit**
Reactivity	**Human, Mouse**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Transient receptor potential cation channel subfamily M member 4(TRPM4) detection. Tested with WB, IHC-P in Human;Mouse.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-TRPM4 Picoband Antibody - 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

Calculated MW
134301 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse

Subcellular Localization
Isoform 1: Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum. Golgi apparatus.

Tissue Specificity
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. .

Protein Name
Transient receptor potential cation channel subfamily M member 4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human TRPM4 recombinant protein (Position: F1079-D1214). Human TRPM4 shares 76.8% and 77.8% amino acid (aa) sequence identity with mouse and rat TRPM4, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-TRPM4 Picoband Antibody - Protein Information

Name TRPM4 (HGNC:17993)

Synonyms LTRPC4

Function
Calcium-activated selective cation channel that mediates membrane depolarization (PubMed:12015988, PubMed:12842017, 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 (PubMed:12015988). 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).

Anti-TRPM4 Picoband Antibody - Protocols

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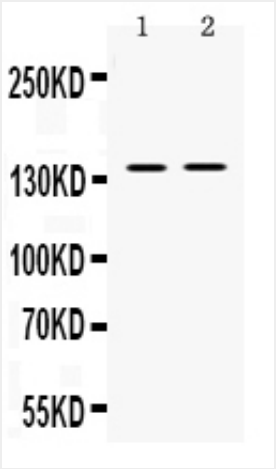
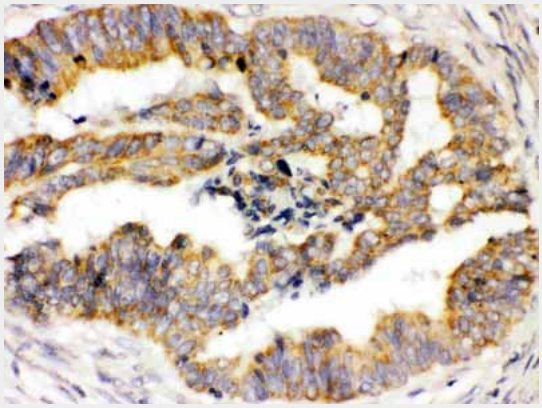
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-TRPM4 Picoband Antibody - Images



Western blot analysis of TRPM4 expression in mouse spleen extract (lane 1) and SW620 whole cell lysates (lane 2). TRPM4 at 134KD was detected using rabbit anti- TRPM4 Antigen Affinity purified polyclonal antibody (Catalog # ABO12588) at0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



TRPM4 was detected in paraffin-embedded sections of human intestinal cancer tissues using rabbit anti- TRPM4 Antigen Affinity purified polyclonal antibody (Catalog # ABO12588) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

Anti-TRPM4 Picoband Antibody - Background

Transient receptor potential cation channel subfamily M member 4 (hTRPM4), also known as melastatin-4, is a protein that in humans is encoded by the TRPM4 gene. It is mapped to 19q13.33. The protein encoded by this gene is a calcium-activated nonselective ion channel that mediates transport of monovalent cations across membranes, thereby depolarizing the membrane. The

activity of the encoded protein increases with increasing intracellular calcium concentration, but this channel does not transport calcium. Two transcript variants encoding different isoforms have been found for this gene.