

Monoclonal Antibody to Transient Receptor Potential Cation Channel Subfamily M, Member 4 (TRPM4)

Transient Receptor Potential Cation Channel Subfamily M, Member 4

Catalog # AP74692

Product Information

Application	WB
Primary Accession	Q9ESQ5
Reactivity	Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	135341

Additional Information

Gene ID	171143
Other Names	TRPM4B; Melastatin-4; Calcium-activated non-selective cation channel 1; Long transient receptor potential channel 4
Target/Specificity	Rattus norvegicus (Rat)
Dilution	WB~~Western blotting: 0.5-2 μ g/mL; Immunohistochemistry: 5-20 μ g/mL; Immunocytochemistry: 5-20 μ g/mL; Optimal working dilutions must be determined by end user.
Format	PBS, pH7.4, containing 0.02% NaN ₃ , 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	Trpm4
Synonyms	Ltrpc4
Function	Calcium-activated selective cation channel that mediates membrane depolarization. While it is activated by increase in intracellular Ca(2+), it is impermeable to it. Mediates transport of monovalent cations (Na(+) > K(+) > Cs(+) > Li(+)), leading to depolarize the membrane (PubMed: 16966582 , PubMed: 19945433). 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 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 (By similarity).

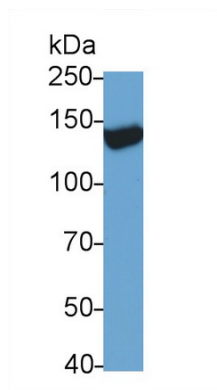
Cellular Location

[Isoform 1]: Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8TD43}. Endoplasmic reticulum. Golgi apparatus

Tissue Location

Isoform 1 is highly expressed in the testis with a moderate expression in the brain, spleen and thymus. Isoform 2 is only expressed in the brain and spleen.

Images



Western Blot; Sample: Rat Serum Primary Ab: 0.5 µg/ml
Mouse Anti-Rat TRPM4 Antibody Second Ab: 0.2 µg/mL
HRP-Linked Caprine Anti-Mouse IgG Polyclonal Antibody
(Catalog: SAA544Mu19)

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