

Recombinant Mouse Trpm4 Protein, Myc/DDK-tagged

Cat. No. Trpm4-6677M Lot. No. (See product label)

SPECIFICATION

Product Overview Purified recombinant protein of mouse full-length transient receptor potential cation channel, subfamily M, member 4 (Trpm4), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species Mouse

Source HEK293

Description Calcium-activated non selective (CAN) cation channel that mediates membrane depolarization. While it is activated by increase in intracellular Ca²⁺, it is impermeable to it. 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 Ca²⁺ 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 Ca²⁺ 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. Essential for the migration but not the maturation of dendritic cells. Plays a role in keratinocyte differentiation.

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Molecular Mass	136.2 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Trpm4 transient receptor potential cation channel, subfamily M, member 4 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Trpm4
Synonyms	TRPM4; transient receptor potential cation channel, subfamily M, member 4; transient receptor potential cation channel subfamily M member 4; long transient receptor potential channel 4; calcium-activated non-selective cation channel 1; transient receptor potential ion channel melastatin subgroup member 4; LTRPC4; TRPM4B; LTrpC-4; AW047689; 1110030C19Rik; FLJ20041
Gene ID	68667
mRNA Refseq	NM_175130
Protein Refseq	NP_780339

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UniProt ID

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