

Product datasheet for **MR211808L4V**

Trpm4 (NM_175130) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Trpm4 (NM_175130) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Trpm4
Synonyms:	1110030C19Rik; AW047689; LTrpC-4; LTRPC4; TRPM4B
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_175130
ORF Size:	3639 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR211808).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_175130.4 , NP_780339.2
RefSeq Size:	4245 bp
RefSeq ORF:	3642 bp
Locus ID:	68667
UniProt ID:	Q7TN37
Cytogenetics:	7 B3



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Gene Summary:

Calcium-activated non selective (CAN) cation channel that mediates membrane depolarization. While it is activated by increase in intracellular Ca^{2+} , it is impermeable to it (PubMed:17188667, PubMed:29211714). 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 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 (By similarity). Essential for the migration but not the maturation of dendritic cells (PubMed:18758465).[UniProtKB/Swiss-Prot Function]