

Product datasheet for **MR211808**

Trpm4 (NM_175130) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Trpm4 (NM_175130) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Trpm4
Synonyms: 1110030C19Rik; AW047689; LTrpC-4; LTRPC4; TRPM4B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR211808 representing NM_175130
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGGGGCCGGAGAAGGAGCAGAGCTGGATCCCTAAGATCTTCAGGAAGAAGGTGTCACGACGTTCA
 TAGTGGACCTCTCCGATGATGCGGGAGGGACCTTGTGCCAGTGTGGGCAACCTCGGGATGCCACCCCTTC
 TGTGGCTGTGGAGGATGCCTTTGGGGCAGCCGTAGTTACCGAGTGAACAGTGTAGACACACCACGGAG
 AAGCCCACAGATGCCTATGGGGACCTGGACTTCACGTACTCTGGCCGAAAGCACAGCAACTTTCTCCGGC
 TGCTGACCGCACGGATCCGGCCACTGTGTACAGTCTCGTTACCCGCTCTTGGGGCTTTCGTGCCCAAA
 CTTGGTGGTGTCCGGTGTGGGGGGTCCGGGGGCCCCGTGCTCCAGACCTGGCTGCAGGACCTTCTGCGT
 CGCGGGCTGGTGAGAGCCGCCAGAGCACAGGGCCCTGGATCGTCACTGGGGACTGCACACAGGCATTG
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 GGGTGTGGCCCCCTGGGGAGTGGTCCGGAACAGAGACATGCTGATCAACCCCAAGGGCTCATTCCCCGCA
 AGGTACCGGTGGCGTGGTGACCTGAGGATGGTGTGAGTTCCCCCTGGACTATAACTATTCTGCTTTCT
 TCTTGGTGGATGATGGCACCTATGGCCGCTGGTGGTGAACCGCTCCGCTTCGGTTTGAGTCCTA
 TGTGGCTCAGCAGAAGACCGGAGTGGGAGGACTGGAATTGACATCCCAGTGTCTCTTCTCATCGAT
 GGAGATGAGAAGATGTTAAAGCGGATAGAGGATGCCACCAAGCTCAGCTCCCCGCCTTGGTGGCGG
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CCTGTAATGGAAGTGTAGAGCTCCGGCTCCCAATGTGGGGCAAGTGTGAGGACTCTGTTGGGAGAAA
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 GACCTCTACTGGAAGGCACAGCGCTACAGCCTCATCCGGGAATTCATTGAGGCGCTGCCCTGGCCCCAC
 CCCTCATCATCTCTCATGTGCGCCTCCTCATCAAGTGGTGCAGGTGTGCGAGGTGTGCGAGGGC
 TAACCTGCCCCCTCCCCAGTCTTCCGAGCACTTCCGTGTCTGTCTCTAAGGAAGCAGAGCGGAAGCTG
 CTGACTTGGGAGTCTGTGCACAAAGAGAACTTCTGTTGGCACAAGCTCGGGACAAGCGAGACAGTACT
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 GCCCTTAGCCACTCTGCCTTGTGCCTCCAGGGGCCACCCTCCGAGCCCACTGGTCCAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211808 representing NM_175130
 Red=Cloning site Green=Tags(s)

MVGPEKEQSWIPKIFRKKVCTTFIVDLSDDAGGTL CQCGQPRDAHPSVAVEDAFGAAVTEWNSDEHTTE
 KPTDAYGDLDF TYSGRKHNSFLRLSDRTDPATVYSLVTRSWGFRAPNLVSVLGGSGGPVLQTLWQDLLR
 RGLVRAAQSTGAWIVTGG LHTGIGRHVGVAVRDHQTASTGSSKVVAMGVAPWGVVNRDMLINPKGSFPA
 RYRWGDPEDGVEFPLDYNYSAFFLVDDGTYGRLLGGENRFRLRFESYVAQQKTGVGGTGIDIPVLLLLID
 GDEKMLKRIEDATQAQLPCLLVAGSGGAADCLVETLEDTLAPGSGGLRRGEARDRIRRYFPKGDPEVLQA
 QVERIMTRKELLTVYSSDGESEEFETIVLRALVKACGSSEASAYLDELRLAVAWNVDIAQSELFRGDIQ
 WRSFHLEASLMDALLNDRPEFVRLLI SHGLSLGHFLTPVRLAQLYSAVSPNSLIRNLLDQASHASSKSP
 PVNGTVELRPPNVGQVLR TLLGETCAPRYPARNTRDSYLGDHRENSLLMDWANKQPSTDASFEQAPWS
 DLLIWALLLNRAQMAIYFWEKGSNSVASALGACLLLRVMARLESEAEAAARRKDLAATFESMSVDLFGEC
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 PLIYTNLIVFRKSEEEPTQKDLDFDMDSSINGAGPPGTVEPSAKVALERRQRRRGRALCCGKFSKRWS
 FWGAPVTAFLGNVVS YLLFLLLFAHVLLVDFQPTKPSVSELLLYFWAFTLLCEELRQGLGGGWGSLASGG
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 QLGPKIVIVSKMMKDVFFFLFLLCVWL VAYGVATEGILRPQDRSLPSILRRVYFRPYLQIFGQIPQEEM
 VALMIPGNCSEMERGWAHPEGPVAGSCVSQYANWL VVLLLIVFLLVANILLNLLIAMFSYTFKSVHGNS
 DLYWKAQRYSLIREFH SRPALAPPLIIISHVRLLIKWLRRCRRCRRANLPASPVEHFVRVCLSKEAERKL
 LTWESVHKENFLLAQARDKRDSERLKRTSQKVDTALKQLGQIREYDRRLRGLEREVQHCSRVL TWMAE
 ALSHSALLPPGAPPPPSPTGSKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1271_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

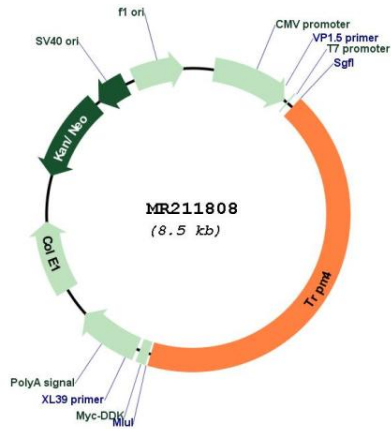


ACCN: NM_175130

ORF Size: 3639 bp

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.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_175130.4 , NP_780339.2
RefSeq Size:	4245 bp
RefSeq ORF:	3642 bp
Locus ID:	68667
UniProt ID:	Q7TN37
Cytogenetics:	7 B3
MW:	136.2 kDa
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]

Product images:



Circular map for MR211808