

Product datasheet for MC223963

Trpm4 (NM_175130) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Trpm4 (NM_175130) Mouse Untagged Clone
Tag: Tag Free
Symbol: Trpm4
Synonyms: 1110030C19Rik; AW047689; LTrpC-4; LTRPC4; TRPM4B
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223963 representing NM_175130
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGTGGGGCCGGAAGGAGCAGAGCTGGATCCCTAAGATCTTCAGGAAGAAGGTGTCACGACGTTCA
 TAGTGGACCTCTCCGATGATGCGGGAGGGACCTTGTGCCAGTGTGGGCAACCTCGGGATGCCACCCTTC
 TGTGGCTGTGGAGGATGCCTTTGGGGCAGCCGTAGTTACCGAGTGAACAGTGATGAGCACACCACGGAG
 AAGCCACAGATGCCTATGGGGACCTGGACTTCACGTACTCTGGCCGAAAGCACAGCAACTTTCTCCGGC
 TGCTGACCCGACGGATCCGGCCACTGTGTACAGTCTCGTTACCCGCTCTTGGGGCTTCGTGCCCAAA
 CTTGGTGGTGTCCGGTGTGGGGGGTCCGGGGGCCCCGTGCTCCAGACCTGGCTGCAGGACCTTCTGCGT
 CGCGGGCTGGTGAGAGCCGCCAGAGCACAGGGCCCTGGATCGTCACTGGGGGACTGCACACAGGCATTG
 GCCGGCACGTGGGTGTGGCTGTAAAGGACCACCAGACAGCCAGCACTGGGAGCAGCAAGGTGGTGGCCAT
 GGGTGTGGCCCCCTGGGGAGTGGTCCGGAACAGAGACATGCTGATCAACCCCAAGGGCTCATTCCCCGCA
 AGGTACCGGTGGCGTGGTACCCTGAGGATGGTGTGAGTCCCCCTGGACTATAACTATTCTGCTTTCT
 TCTTGGTGGATGATGGCACCTATGGCCGCCTGGGTGGTGAACCCGCTCCGCTTCGGTTTGAGTCCCTA
 TGTGGCTCAGCAGAAGACCGGAGTGGGAGGACTGGAATTGACATCCCAGTGTCTCCTTCTCATCGAT
 GGAGATGAGAAGATGTTAAAGCGGATAGAGGATGCCACCAAGCTCAGCTCCCCTGCCTCTTGGTGGCGG
 GCTCTGGGGTGTGCAGACTGTCTGGTGGAGACCCTGGAAGATACTCTGGCCCCAGGGAGTGGGGGACT
 TAGGCGAGGCGAAGCCCGGGATCGGATTAGGCGATACTCCCTAAAGGAGACCCTGAGGTTCTTCAGGCC
 CAGGTAGAGAGGATCATGACCCGAAAGGAGTGTGACGGTCTATTATCAGAAGACGGCTCCGAGGAGT
 TTGAGACTATCGTTTTGAGGGCTCTGTGAAAGCCTGTGGGAGCTCTGAGGCCTCAGCCTACCTGGATGA
 GCTGCGTTTTGGCTGTGGCTTGAACCCGCTGGACATCGCCCAAAGTGAACTTTTCCGTGGGACATCCAA
 TGCGGGTCTTCCACCTGGAGGCATCTCTCATGGATGCTCTGCTGAATGACCGGCCTGAATTTGTGCGCC
 TGCTCATCTCCATGGCCTTAGCCTGGGACACTTCTGACCCCGTGGCTCTGGCCAGCTGTACAGCGC
 GGTGTCCCTAACTCACTGATCCGAAATCTTCTGGACCAGGCGTCCCATGCTAGTAGCAGCAATCCCT
 CCTGTAATGGAAGTGTAGAGCTCCGGCCTCCCAATGTGGGGCAAGTGTGAGGACTCTGTTGGGAGAAA



CGTGTGCCACCACGGTACCCTGCCAGGAACACCCGAGACTCCTATCTGGGCCAGGACCACAGAGAGAATGA
 CTCTCTGCTTATGGACTGGGCCAACCAAGCAACCATCAACGGATGCAAGCTTTGAACAAGCCCCCTGGAGT
 GACCTGCTATTTGGGCTCTGTTGCTGAACCGGGCCAGATGGCTATCTATTTCTGGGAGAAGGGCTCCA
 ACTCAGTGGCCTCTGCTCTTGGGCTTGTCTTTACTCCGAGTGATGGCTCGCCTAGAGTCGGAGGCTGA
 GGAGGCCGCGCGGCGGAAGGATCTTGTGCCACGTTTAAAGCATGAGCGTGGACCTCTTGGAGAGTGT
 TACCACAACAGTGAAGAGCGAGCAGCCCGCTTCTTCTGCGCCGCTGTCCCCTCTGGGGAGAGGCCACCT
 GCCTCCAGCTTGCATGCAGGCTGATGCCCGAGCTTCTTGGCCAGGATGGAGTCCAGTCTTCTTGAC
 ACAGAAGTGGTGGGGGAGATGGACAGCACTCCCATCTGGGCCCTGCTTCTCGCCTTCTTCTGCCCCG
 CCTCTCATCTACACCAACCTTATCGTCTTCAGGAAGTCAGAGGAGGAGCCACACAGAAGGATCTTGACT
 TTGATATGGACAGCAGCATCAATGGAGCAGTCTCTGGGACTGTAGAACCCTCTGCAAAGGTGGCCCT
 TGAGAGGCGGCAGCGGCACGGCCAGGACGTGCCCTCTGCTGTGGCAAGTTCTCCAAGCGCTGGTCGGAC
 TTCTGGGGTGCCCAAGTACTGCCTTCTGGGTAATGTGGTCAGTTACCTGCTGTCTGCTGCTGTTT
 CCCACGTGTTGCTGGTGGATTTCCAGCCACAAGCCAAGTGTCTCCGAGCTGCTGTACTTCTGGG
 CTTACAGTGTGCTGCGAGGAGCTGCGCCAGGGCTGGTGGTGGCTGGGGTAGCCTGGCCAGTGGGGGA
 CGTGGTCCGACAGAGCTCCCCTGCGCCATCGGCTGCACCTCTACCTCTCAGATACTGGAACCAATGTG
 ACCTGCTGGCACTCACCTGCTTCTGCTGGGCGTAGGCTGCCGGCTGACCCTGGGCTCTTGGACTTGGG
 ACGCACCGTCTCTGCCTTGACTTCATGATCTTACACTGCGCCTGCTGCACATCTTACCGTGAACAAG
 CAGCTGGGGCCCAAGATTGTCAAGTAGGACAAAATGATGAAGGATGATTTCTTCTTCTTCTTCTCT
 GCGTGTGGCTTGTAGCTTATGGGGTGGCCACAGAGGGGATCCTGAGGCCCCAGGACCGCAGTCTACCGAG
 TATCCTGCGCAGGGTCTTCTACCGACGTATCTGCAGATCTTCGGACAAATCCCCAGGAGGAAATGGAC
 GTGGCCCTCATGATTCAGGTAAGTCTCAATGGAGCGGGGCTCCTGGGCTCATCCGGAGGGGCCGTCG
 CAGGCTCCTGTGTGCCAGTATGCCAACTGGTGGTGGTGTGCTCCTTATCGTCTTCTTGTGTTGGC
 CAATATCCTGTTGCTCAACCTGCTCATCGCCATGTTGAGCTACACCTTCAGCAAAGTGCACGGCAACAGC
 GACCTCTACTGGAAGGCACAGCGCTACAGCCTCATCCGGGAATTCATTGAGGCCCTGCCCTGGCCCCAC
 CCCTCATCATCTCTCATGTGCGCCTCCTCATCAAGTGGCTGCGCAGGTGTGCGAGGTGTGCGAGGGC
 TAACTTGCCCGCCTCCCCAGTCTTCGAGCACTCCGTGTCTGTCTCTAAGGAAGCAGAGCGGAAGCTG
 CTGACTTGGGAGTCTGTGCACAAAGAGAACTTCTGTTGGCACAAGCTCGGGACAAGCGAGACAGTACT
 CGGAGCGTTTAAACGCACGTCTCAGAAGTGGACTGCACTGAAGCAGCTGGGACAGATCAGAGAGTA
 CGATCGGCGTCTGAGGGGCTGGAGAGAGAGGTCCAACACTGTTCTCGAGTCTGACTTGGATGGCTGAG
 GCCCTTAGCCACTCTGCCTTGTGCTCCAGGGGCCACCCCTCCGAGCCCCACTGGTCCAAGACT
 GA

ACGGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_175130
- Insert Size:** 3642 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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:

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

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]