

Product datasheet for MR225279

Trpm8 (NM_134252) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Trpm8 (NM_134252) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Trpm8
Synonyms: CMR1; LTrpC-6; LTRPC6; Trp-p8; TRPP8
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR225279 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCTTCGAGGGAGCCAGGCTCAGCATGAGGAGCCGAGAAATGGTACTATGGGCAGCACCCGGACCC
 TGTACTCCAGTGTATCTCGGAGCACAGACGTGTCTACAGTGACAGTGATTTGGTGAATTTTATTCAGGC
 AAATTTAAAAACGAGAATGTGTCTTTACCAGAGACTCCAAGGCCATGGAGAACATATGCAAGTGT
 GGTATGCCAGAGCCAGCACATCGAAGGCACCCAGATCAACAAAATGAGAAGTGAACACAAAAAC
 ATACCAAGGAGTTTCCAACAGACGCCTTCGGGGACATTAGTTTGAGACTCTGGGAAGAAAGGCAAGTA
 CTTACGCTTGTCTGTGACACCGACTCTGAACTCTACGAAGTCTGACCCAGCACTGGCACCTCAA
 ACACCAACCTGGTCATTTAGTACGACGGGTGGAGCCAAAACTTTGCTTTGAAGCCACGCATGCGAAGA
 TCTTCAGCAGGCTGATTTACATCGCACAGTCTAAAGGTGCGTGGATTCTCACTGGAGGCACTCACTACGG
 CCTGATGAAGTACATAGGCGAGGTGGTGGAGAGACAACACCATCAGCAGGAAGTCAAGAGAGAATCGTG
 GCCATTGGCATCGCAGCATGGGGCATGGTCTCCAACAGGGACACCCTCATCAGGAGCTGTGATGATGAGG
 GACATTTTCAGCTCAATACATCATGGATGACTTTACCAGAGACCCTCTATACATCTGGACAACAACCA
 TACCCACCTGCTGCTTGTGGACAACGGTGTGATGGACACCCACAGTGAAGCAAGTCCGGAATCAG
 CTGGAAAAGTACATCTCTGAGCGCACCAAGTCAAGATTCCAATATGGTGGTAAGTCCCATCGTGTGT
 TTGCCAAAGGAGGTGGAAGAGAGACTCTAAAAGCCATCAACACCCTCTGTCAAAGCAAGATCCCTTGTGT
 GGTGGTGAAGGCTCGGGCAGATTGCTGATGTGATCGCCAGCCTGGTGGAGGTGGAGGATGTTTTAAC
 TCTTCCATGGTCAAAGAGAAGCTGGTACGCTTTTTACCACGCACTGTGTCCCGGCTGCCTGAAGAGGAAA
 TTGAGAGCTGGATCAAATGGCTCAAAGAAATCTTGAGAGTTCTCACCTACTCACAGTAATTAAGATGGA
 AGAGGCTGGAGATGAGATTGTGAGCAACGCCATTTCTATGCGCTGTACAAAGCCTTCAGCACTAATGAG
 CAAGACAAGGACAACCTGGAATGGACAGCTGAAGCTTCTGCTGGAGTGAAGCAGTTGGACCTTGCCAGTG
 ATGAGATCTTACCAATGACCGCGCTGGGAGTCTGCCACCTTCAGGAGGTGATGTTACGGCTCTCAT
 AAAGGACAGACCAAGTTTGTCCGCTCTTTCTGGAGAATGGCCTGAATCTGCAGAAGTTTCTACCAAT



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GAAGTCTCACAGAGCTTCTCCACCCACTTCAGCACCCCTAGTGTACCGAACCTGCAGATCGCCAAGA
 ACTCCTACAATGACGCACTCCTCACCTTGTCTGGAAGTTGGTGGCAAACCTCCGTCGAAGCTTCTGGAA
 AGAGGACAGAAGCAGCAGGGAGGACTTGGATGTGGAATCCATGATGCATCTCTACCACCCGGCACCCG
 CTGCAAGCTCTTTCATCTGGGCCATTCTTCAAGCAAGAAGAACTCTCCAAGGTCAATTTGGGAGCAGA
 CCAAAGGCTGTACTCTGGCAGCCTTGGGGGCCAGCAAGCTTCTGAAGACCTGGCCAAAGTTAAGAATGA
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 ATGTTTGGCCAGGTTCCAGTGACGTGGATAGTACCACATAGACTTCTCCCACTGTACCTTCTCGGGAA
 ATGAGTCCAAGCCACTGTGTGTGGAGCTGGATGAGCACAACCTGCCCCGCTTCCCTGAGTGGATCACCAT
 TCCGCTGGTGTGCATCTACATGCTCTCCACCAATATCCTTCTGGTCAACCTCCTGGTCCCATGTTTGGC
 TACACGGTAGGCATTGTACAGGAGAACAACGACCAGGCTGGAATTCAGCGGTAATCTCCTGGTGCAGG
 AGTACTGCAACCCGCTAAACATCCCCTCCCCTTCGTTGCTTCTGCTTATTTCTACATGGTGGTGAAGAA
 GTGTTTCAAATGCTGCTGTAAGAGAAGAATATGGAGTCTAATGCCTGCTGTTTTCAGAAATGAGGCAAT
 GAGACTTTGGCGTGGGAGGGTGCATGAAGGAGAATTACCTTGTCAAGATCAACACGAAAGCCAACGACA
 ACTCAGAGGAGATGAGGCATCGGTTAGACAACCTGGACTCAAAGCTTAACGACCTCAAAGTCTTCTGAA
 AGAGATTGCTAATAACATCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR225279 protein sequence
 Red=Cloning site Green=Tags(s)

MSFEGARLSMRSRRNGTMGSTRTLYSSVSRSTDVSYSDSDLVNF IQANFKKRECVFFTRDSKAMENICKC
 GYAQSQHIEGTQINQNEKWNYYKHTKEFPTDAFGDIQFETLGGKGYLRLSCDTDSETLYELLTQHWHLK
 TPNLVISVTGGAKNFALKPRMRKIFSRLLIYIAQSKGAWILTGGTHYGLMKYIGEVVRDNTISRNSEENIV
 AIGIAAWGMVSNRDLIRSCDDEGHFSAQYIMDDFTRDPLYILDNNHHTLLLVDNGCHGHPTVEAKLRNQ
 LEKYISERTSQDSNYGGKIPVCF AQGGRETLKAINTSVKSKIPCVVVEGSGQIADVIASLVEVEDVLT
 SSMVKEKLVRFPRVSRLEPEEEIESWIKWLKEILESSHLLTVIKMEEAGDEIVSNAISYALYKAFSTNE
 QDKDNWNGQLKLLLEWNQLDLASDEIFTNDRRWESADLQEVMTALIKDRPKFVRLFLENGLNLQKFLTN
 EVLTELFSHFSTLVYRNLQIAKNSYNDALLTFVWKL VANFRRSFWKEDRSSREDLDVELHDAASLTTRHP
 LQALFIWAILQNKELSKVIWEQTKGCTLAALGASKLLKTLAKVKNDINAAGESEELANEYETRAVELFT
 ECYSNDEDLAEQLLVYSCEAWGGSNCLELAVEATDQHFIAQPGVQNF LSKQWYGEISRDTKNWKIILCLF
 IIPLVGCGLV SFRKKPIDKHKLLWYVAFVFTSPFVVFVSWNVVYIAFLLLFAYVLLMDFHVSPTPELI
 LYALVFVLCDEVQRWYMNWVNYFTDLWNVMDTLGLFYFIAGIVFRLHSSNKSSLYSGRIFCLDYIIFT
 LRLIHIFTVSRNLGPKIIMLQRMLIDVFFLFLFAVWVAFGVARQGILRQNEQRWRWIFRSVIYEPYLA
 MFGQVPSDVSTTYDFSHCTFSGNE SKPLCVELDEHNLPRFPEWITIPLVCIYMLSTNILLVNLVAMFG
 YTVGIVQENNDQVWKFQRYFLVQEYCNRLNIPFPVVFAYFYMVVKCKFKCCCKEKNMESNACCFRDNED
 ETLAWEGVMKENYLKINTKANDNSEEMRHRFRQLDSKLNLDKSLLEIANNIK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_134252

ORF Size: 3315 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:

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_134252.2](#)

RefSeq Size: 3869 bp

RefSeq ORF: 3315 bp

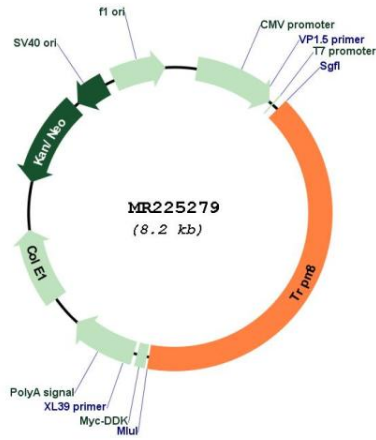
Locus ID: 171382

UniProt ID: [Q8R4D5](#)

Cytogenetics: 1 D
 MW: 127.7 kDa

Gene Summary: Receptor-activated non-selective cation channel involved in detection of sensations such as coolness, by being activated by cold temperature below 25 degrees Celsius. Activated by icilin, eucalyptol, menthol, cold and modulation of intracellular pH. Involved in menthol sensation. Permeable for monovalent cations sodium, potassium, and cesium and divalent cation calcium. Temperature sensing is tightly linked to voltage-dependent gating. Activated upon depolarization, changes in temperature resulting in graded shifts of its voltage-dependent activation curves. The chemical agonists menthol functions as a gating modifier, shifting activation curves towards physiological membrane potentials. Temperature sensitivity arises from a tenfold difference in the activation energies associated with voltage-dependent opening and closing.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225279