

Product datasheet for SC112270

TRPM8 (NM_024080) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: TRPM8 (NM_024080) Human Untagged Clone
Tag: Tag Free
Symbol: TRPM8
Synonyms: LTrpC-6; LTRPC6; trp-p8; TRPP8
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_024080 edited
 ATGTCCTTTCGGGCAGCCAGGCTCAGCATGAGGAACAGAAGGAATGACACTCTGGACAGC
 ACCCGGACCCTGTACTCCAGCGCTCTCGGAGCACAGACTTGTCTTACAGTGAAAGCGAC
 TTGGTGAATTTTATTCAAGCAAATTTTAAGAAACGAGAATGTGTCTTCTTTACCAAAGAT
 TCCAAGGCCACGGAGAATGTGTGCAAGTGTGGCTATGCCAGAGCCAGCACATGGAAGGC
 ACCCAGATCAACCAAAGTGAGAAATGGAACAAGAAACACACCAAGGAATTTCTACC
 GACGCTTTGGGATATTAGTTTGGACACTGGGGAAGAAAGGAAGTATATACGCTCTG
 TCCTGCGACACGGACGCGGAAATCCTTTACGAGCTGCTGACCCAGCACTGGCACCTGAAA
 ACACCAACCTGGTCATTTCTGTGACCGGGGGCCCAAGAATTCGCCTGAAGCCGCGC
 ATGCGCAAGATCTTCAGCCGGCTCATCTACATCGCGCAGTCCAAAGGTGCTTGGATTCTC
 ACGGGAGGCACCCATTATGGCCTGATGAAGTACATCGGGGAGGTGGTGAGAGATAACACC
 ATCAGCAGGAGTTCAGAGGAGAATATTGTGGCCATTGGCATAGCAGCTTGGGGCATGGTC
 TCCAACCGGGACACCTCATCAGGAATTGCGATGCTGAGGGCTATTTTTAGCCCAGTAC
 CTTATGGATGACTTCACAAGAGATCCACTCTATATCCTGGACAACAACCACACATTTG
 CTGCTCGTGGACAATGGCTGTATGGACATCCCACTGTGGAAGCAAAGCTCCGGAATCAG
 CTAGAGAAGTATATCTCTGAGCGCACTATTCAAGATTCCTCACTATGGTGGCAAGATCCCC
 ATTGTGTGTTTTGCCAAGGAGGTGGAAGAGACTTTGAAAGCCATCAATACCTCCATC
 AAAATAAAATTCCTTGTGTGGTGGTGGAAAGGCTCGGGCCAGATCGCTGATGTGATCGCT
 AGCCTGGTGGAGGTGGAGGATGCCCTGACATCTTCTGCCGTCAAGGAGAAGCTGGTGCCG
 TTTTACCCCGCACGGTGTCCCGCTGCCTGAGGAGGAGACTGAGAGTTGGATCAAATGG
 CTCAAAGAAATTCGAATGTTCTCACCTATTAACAGTTATTAATAAGGAAGAAGCTGGG
 GATGAAATTTGAGCAATGCCATCTCTACGCTCTATACAAAGCCTTCAGCACCAGTGAG
 CAAGACAAGGATAACTGGAATGGCAGCTGAAGCTTCTGCTGGAGTGGAACCAGCTGGAC
 TTAGCCAATGATGAGATTTTACCAATGACCGCCGATGGGAGTCTGCTGACCTTCAAGAA
 GTCATGTTTACGGCTCTCATAAAGGACAGACCAAGTTTGTCCGCTCTTCTGGAGAAT
 GGCTTGAACCTACGGAAGTTTCAACCATGATGCTCTCACTGAACTCTTCTCCAACCAC
 TTCAGCAGCTTGTGTACCGAATCTGCAGATCGCAAGAATTCCTATAATGATGCCCTC



[View online >](#)

CTCACGTTTGTCTGGAACTGGTTGCGAACTCCGAAGAGGCTCCGGAAGGAAGACAGA
 AATGGCCGGGACGAGATGGACATAGAACTCCACGACGTGTCTCTATTACTCGGCACCCC
 CTGCAAGCTCTTTCATCTGGGCCATTCTTCAGAAATAAGAAGGAACTCTCCAAAGTCATT
 TGGGAGCAGACCAGGGGCTGCACTCTGGCAGCCCTGGGAGCCAGCAAGCTTCTGAAGACT
 CTGGCCAAAGTGAAGAACGACATCAATGCTGCTGGGGAGTCCGAGGAGCTGGCTAATGAG
 TACGAGACCCGGGCTGTTGAGCTGTTCACTGAGTGTTACAGCAGCGATGAAGACTGGCA
 GAACAGTGTGGTCTATTCTGTGAAGCTTGGGGTGAAGCAACTGTCTGGAGCTGGCG
 GTGGAGGCCACAGACCAGCATTTTCATCGCCAGCCTGGGGTCCAGAATTTCTTTCTAAG
 CAATGGTATGGAGAGATTTCCCGAGACCCAAGAAGTGAAGATTATCCTGTGTCTGTTT
 ATTATACCCTTGGTGGGCTGTGGCTTTGTATCATTAGGAAGAAAACCTGTGACAAGCAC
 AAGAAGCTGCTTGGTACTATGTGGCTTCTTACCTCCCCCTTCGTGGTCTTCTCTG
 AATGTGGTCTTACATCGCCTTCTCTGCTGTTTGCCTACGTGCTGCTCATGGATTC
 CATTCCGTGCCACACCCCGAGCTGGTCTGTACTCGTGGTCTTTGCCTCTTCTGT
 GATGAAGTGAGACAGTGGTACGTAATGGGGTGAATTATTTACTGACCTGTGGAATGTG
 ATGGACACGCTGGGGCTTTTTACTTTCATAGCAGGAATTGTATTTCCGGCTCCACTCTTCT
 AATAAAAGCTCTTTGTATTCTGGACGAGTCATTTCTGTCTGGACTACATTATTTCACT
 CTAAGATTGATCCACATTTTACTGTAAGCAGAAACTTAGGACCAAGATTATAATGCTG
 CAGAGGATGCTGATCGATGTGTTCTTCTCTGTTCTCTTTGCGGTGTGGATGGTGGCC
 TTTGGCGTGGCCAGGCAAGGGATCCTTAGGCAGAAATGAGCAGCGCTGGAGGTGGATATTC
 CGTTCGGTCATCTACGAGCCCTACCTGGCCATGTTTCGGCCAGGTGCCAGTGACGTGGAT
 GGTACCACGTATGACTTTGCCACTGCACCTTCACTGGGAATGAGTCCAAGCCACTGTGT
 GTGGAGCTGGATGAGCACAACCTGCCCGGTTCCCGAGTGGATCACCATCCCCCTGGTG
 TGCATCTACATGTTATCCACCAACATCCTGTGGTCAACCTGCTGGTCCCATGTTTGGC
 TACACGGTGGGCACCGTCCAGGAGAACAATGACCAGGTCTGGAAGTTCAGAGGTAATTC
 CTGGTGCAGCAGTACTGCAGCCGCTCAATATCCCTTCCCTTTCATCGTCTTCGTTAC
 TTCTACATGGTGGTGAAGAAGTCTTCAAGTGTGCTGCAAGGAGAAAAACATGGAGTCT
 TCTGTCTGCTGTTTCAAAAATGAAGACAATGAGACTCTGGCATGGGAGGGTGTGATGAAG
 GAAAACCTACCTGTCAAGATCAACACAAAAGCCAAACGACACCTCAGAGGAAATGAGGCAT
 CGATTTAGACAACCTGGATACAAAGCTTAATGATCTCAAGGGTCTTCTGAAAGAGATTGCT
 AATAAAATCAAATAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_024080 unedited
 TTTACATTAGGTAATACGACTTACTATAGGGCGGCCGCGAAATTCGCACCAGNANAAAAT
 CCTGCTTGACAAAAACCGTCACTTAGGAAAAGAGTCTTTTCGGGCAGCCAGGCTCAGCAT
 GAGGAACAGAAGGAATGACACTCTGGACAGCACCCGGACCCTGTACTCCAGCGCTCTCG
 GAGCACAGACTTGTCTTACAGTGAAGCGACTTGGTGAATTTTATTCAAGCAAATCTTAA
 GAAACGAGAATGTGTCTTCTTTACCAAAGATTCCAAGGCCACGGAGAATGTGTGCAAGTG
 TGGCTATGCCCAGAGCCAGCATATGGAAGGCACCCAGATCAACCAAAGTGAGAAATGGAA
 CTAACAAGAAACACACCAAGGAATTTCTACCGACGCTTTGGGGATATTAGTTTGGAGAC
 ACTGGGGAAGAAAGGGAAGTATATACGTCTGCTCCTGCGACACGGACGCGGAAATCCTTTA
 CGAGCTGCTGACCCAGCACTGGCACCTGAAAACACCCAACCTGGTCATTTCTGTGACCGG
 GGGCGCAAGAATTCGCCCTGAAGCCGCGCATGCGCAAGATCTTCAGCCGGCTCATCTA
 CATCGCGCAGTCCAAAGGTGCTTGGCTTCTCACGGGAGGCACCCATTATGGCCCTGATGA
 AATACATTGGGCGAGGTGGTGAAGAGATAACACCATCAGCAGGAGCTCAGAGGAGAATAT
 GTGGCCATTGGCATAGCAGCTTTGGGCATGGTCTCCAACCGGGACACCCTCCATCAGAAT
 TGCGAAGCTGAGGGCTATTTTTAGCCAGTACCCTATGGATGACTTCACAAGAGATCCA
 CTTTATTTCTGAAAACCAACACACAATTTGCTGCTTGTGAACATGCCTGCCATGGCCA
 TCCACTGTGAAAACAAACCTCCA

3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_024080 unedited</p> <pre> ACTTTGAACCCGCGCCGCATNCTAGGATCGAGTTTTTTTTTTTTTTTTTTTAGTAGAGAT GTGGTTTTGCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCTGCCAC CATCCATAATATTTAAATAAGCATATTGACTTCTTCTTAACTAAGGGTTAAATAATA TTTTATTTAATAGTTCAGGTTTCATGTATCTCATATCTTATGCTCAAGTTAATAATTCCT ATTTGCTATACATTTATGAAAAAGCCTTATAAATGGTTTTAATAATAAATAGATATTTA ATATTTAATAATAAATAGATATTTATTGGAATCTAACCTTGAAAAATTTCCCAAATACA GCAATAGGATTCATGCACAAAGATGCTCATCCAATGATCAACTGGAGATAGCCTTCAAT GAGCAAATTATGGTAATCGCTAGAGGTTGCTATTATGCAATTATTGATATAATGTTTA AGAAGGCTATGAATATAATAAAAACATATTTGATAAAATACTAAGTGAAAAAGCTTACAT AAAAAGTATATATGATGATGATAACATTCTGTAATAATTTGAAAGAGAATTGAGACATA CATAGAAAAAAAATAGACTTGAAAAACCATCCAGAAATGTTAGCAGTGATTACCTTAAG GTAATGGGGACAATTTATGTTCTTTCTACATCTCTGTATGGGCTAAATTTCTATAATAG CCAGCTATTATTTTAAATGGAAAAATAAATAAAGAGGAGTATCCAATAAGAACAAAGT CAGTAGTGCCTTTCAAGGTTGCATTTTGGGCGACTTTTACATATTTANGAATGGNGGTG GTTCTTCAATANGAGCCTGGTGAGTCCAAGAGAGCAGAGACTGCCTTGTACCTNCTCT GACAGTAAGAAGCTCCTGAGAATGAAACACTTTTCNCTGAGAGAGCGGGTCTCTGCTGC AN </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_024080
Insert Size:	5100 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_024080.3.
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_024080.3 , NP_076985.3
RefSeq Size:	5674 bp
RefSeq ORF:	3315 bp
Locus ID:	79054
UniProt ID:	Q7Z2W7
Cytogenetics:	2q37.1
Domains:	ion_trans
Protein Families:	Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
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 agonist 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. In prostate cancer cells, shows strong inward rectification and high calcium selectivity in contrast to its behavior in normal cells which is characterized by outward rectification and poor cationic selectivity. Plays a role in prostate cancer cell migration (PubMed:25559186). Isoform 2 and isoform 3 negatively regulate menthol- and cold-induced channel activity by stabilizing the closed state of the channel.[UniProtKB/Swiss-Prot Function]