

## Product datasheet for **MG225279**

### Trpm8 (NM\_134252) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Trpm8 (NM_134252) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Trpm8
Synonyms:	CMR1; LTrpC-6; LTRPC6; Trp-p8; TRPP8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225279 representing NM_134252 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCTTCGAGGGAGCCAGGCTCAGCATGAGGAGCCGAGAAATGGTACTATGGGCAGCACCCGGACCC  
TGTACTCCAGTGTATCTCGGAGCACAGACGTGTCTACAGTGACAGTGATTTGGTGAATTTTATTCAGGC  
AAATTTAAAAACGAGAATGTGTCTTTACCAGAGACTCCAAGGCCATGGAGAACATATGCAAGTGT  
GGTTATGCCAGAGCCAGCACATCGAAGGCACCCAGATCAACAAAATGAGAAGTGAACACAAAAAC  
ATACCAAGGAGTTTCCAACAGACGCCTTCGGGGACATTCAGTTTGAGACTCTGGGAAGAAAGGCAAGTA  
CTTACGCTTGTCTGTGACACCGACTCTGAACTCTACGAAGTCTGACCCAGCACTGGCACCTCAA  
ACACCAACCTGGTCATTTCACTGACGGGTGGAGCCAAAACTTTGCTTTGAAGCCACGCATGCGCAAGA  
TCTTCAGCAGGCTGATTTACATCGCACAGTCTAAAGGTGCGTGGATTCTCACTGGAGGCACTCACTACGG  
CCTGATGAAGTACATAGGCGAGGTGGTGGAGACAACACCATCAGCAGGAAGTCAAGAGAGAATCATCGTG  
GCCATTGGCATCGCAGCATGGGGCATGGTCTCCAACAGGGACACCCTCATCAGGAGCTGTGATGATGAGG  
GACATTTTTCAGCTCAATACATCATGGATGACTTTACCAGAGACCCTCTATACATCTGGACAACAACCA  
TACCCACCTGCTGCTTGTGGACAACGGTTGTCTGAGACACCCACAGTGAAGCAAGTCCGGAATCAG  
CTGGAAAAGTACATCTCTGAGCGCACAGTCAAGATTCCAATATGGTGGTAAGTCCCATCGTGTGTT  
TTGCCAAAGGAGGTGGAAGAGAGACTCTAAAAGCCATCAACACCCTCTGTCAAAGCAAGATCCCTTGTGT  
GGTGGTGAAGGCTCGGGCAGATTGCTGATGTGATCGCCAGCCTGGTGGAGGTGGAGGATGTTTTAACCC  
TCTTCCATGGTCAAAGAGAAGCTGGTACGCTTTTTACCACGCACTGTGTCCCGGCTGCCTGAAGAGGAAA  
TTGAGAGCTGGATCAAATGGCTCAAAGAAATCTTGAGAGTTCTCACCTACTCACAGTAATTAAGATGGA  
AGAGGCTGGAGATGAGATTGTGAGCAACGCCATTTCTATGCGCTGTACAAAGCCTTCAGCACTAATGAG  
CAAGACAAGGACAACCTGGAATGGACAGCTGAAGCTTCTGCTGGAGTGAAGCAGTTGGACCTTGCCAGTG  
ATGAGATCTTACCAATGACCGCCGCTGGGAGTCTGCCACCTTCAGGAGGTGATGTTACGGCTCTCAT  
AAAGGACAGACCAAGTTTGTCCGCTCTTTCTGGAGAATGGCCTGAATCTGCAGAAGTTTCTACCAAT



[View online »](#)

GAAGTCTCACAGAGCTTCTCCACCCACTTCAGCACCCCTAGTGTACCGAACCTGCAGATCGCCAAGA  
 ACTCCTACAATGACGCACTCCTCACCTTGTCTGGAAGTTGGTGGCAAACCTCCGTCGAAGCTTCTGGAA  
 AGAGGACAGAAGCAGCAGGGAGGACTTGGATGTGGAACCCATGATGCATCTCTACCACCCGGCACCCG  
 CTGCAAGCTCTTTCATCTGGGCCATTCTTCAAGCAAGAAGAACTCTCCAAGGTCAATTTGGGAGCAGA  
 CCAAAGGCTGACTCTGGCAGCCTTGGGGGCCAGCAAGCTTCTGAAGACCCTGGCCAAAGTTAAGAATGA  
 TATCAACGCTGCTGGGAATCGGAGGAATGGCCAATGAATGAGACCCGAGCAGTGGAGTTGTTCCACC  
 GAGTGTACAGCAATGATGAAGACTTGGCAGAACAGCTACTGGTCTACTCTGCAAGCCTGGGGTGGGA  
 GCAACTGTCTGGAGCTGGCAGTGGAGGCTACAGATCAGCATTTCATCGCTCAGCCTGGGGTCCAGAATTT  
 CCTTTCTAAGCAATGGTATGGAGAGATTTCCCGAGACACGAAGAACTGGAAGATTATCCTGTGTCTATTC  
 ATTATCCCCTTAGTGGGCTGTGGCCTCGTATCATTTAGGAAGAAACCCATTGACAAGCACAAGAAGCTGC  
 TGTGGTACTATGTGGCCTTCTTACGTCGCCCTTCGTGGTCTTCTCCTGGAACGTGGTCTTCTACATCGC  
 CTTCTCCTGCTGTTGCCTATGTGCTGCTCATGGACTTCCACTCAGTCCACACACACCCCGAGCTGATC  
 CTCTACGCCCTGGTCTTCGCTCTTCTGTGATGAAGTGAAGCAGTGGTACATGAACGGAGTGAATTATT  
 TCACCGACCTATGGAACGTTATGGACACCCTGGGACTCTTCTACTTCATAGCGGGTATTGTATTCCGGCT  
 CCACTCTTCTAATAAAAAGCTCGTTGTACTCTGGGCGCGTCATTTTCTGTCTGGATTACATTATATTCAGC  
 CTAAGGCTCATCCACATTTTACCGTCAGCAGGAACCTGGGACCCAAGATTATAATGCTGCAGCGGATGC  
 TGATCGACGTTTTCTTCTTCTGTTCTTCTTGTGTGGATGGTGGCCTTTGGCGTGGCCAGACAGGG  
 GATCCTAAGGCAAAAATGAACAGCGCTGGAGATGGATCTTCCGCTCTGTACTATGAGCCCTACCTGGCC  
 ATGTTTGGCCAGGTTCCAGTGACGTGGATAGTACCACATAGACTTCTCCCACTGTACCTTCTCGGGAA  
 ATGAGTCCAAGCCACTGTGTGGAGCTGGATGAGCACAACCTGCCCGCTTCCCTGAGTGGATCACCAT  
 TCCGCTGGTGTGCATCTACATGCTCTCCACCAATATCCTTCTGGTCAACCTCCTGGTCCCATGTTTGGC  
 TACACGGTAGGCATTGTACAGGAGAACAACGACCAGGCTGGAATTCAGCGGTACTTCTGGTGCAGG  
 AGTACTGCAACCCGCTAAACATCCCCTCCCCTTCTGTTGCTTCTGCTTATTCTACATGGTGGTGAAGAA  
 GTGTTTCAAATGCTGCTGTAAGAGAAGAATATGGAGTCTAATGCCTGCTGTTTTCAGAAATGAGGCAAT  
 GAGACTTTGGCGTGGGAGGGTGCATGAAGGAGAATTACCTTGTCAAGATCAACACGAAAGCCAACGACA  
 ACTCAGAGGAGATGAGGCATCGGTTAGACAACCTGGACTCAAAGCTTAACGACCTCAAAGTCTTCTGAA  
 AGAGATTGCTAATAACATCAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG225279 representing NM\_134252  
 Red=Cloning site Green=Tags(s)

MSFEGARLSMRSRRNGTMGSTRTLYSSVSRSTDVSYSDSDLVNF IQANFKKRECVFFTRDSKAMENICKC  
 GYAQSQHIEGTQINQNEKWNYYKHKHTKEFPTDAFGDIQFETLGKKGKYLRLSCDTDSETLYELLTQHWHLK  
 TPNLVISVTGGAKNFALKPRMRKIFSRLLIYIAQSKGAWILTGTHYGLMKYIGEVVRDNTISRNSEENIV  
 AIGIAAWGMVSNRDLIRSCDDEGHFSAQYIMDDFTRDPLYILDNNHHTLLLVDNGCHGHPTVEAKLRNQ  
 LEKYISERTSQDSNYGGKIPVCFQAQGGRETLKAINTSVKSKIPCVVVEGSGQIADVIASLVEVEDVLT  
 SSMVKEKLVRFLLPRTVSRLEPEEEIESWIKWLKEILESSHLLTVIKMEEAGDEIVSNAISYALYKAFSTNE  
 QDKDNWNGQLKLLLEWNQLDLASDEIFTNDRRWESADLQEVMTALIKDRPKFVRLFLEENLNLQKFLTN  
 EVLTELSTHFTSLVYRNLQIAKNSYNDALLTFVWKLVANFRRSFWKEDRSSREDLDVELHDAASLTRHP  
 LQALFIWAILQNKELSKVIWEQTKGCTLAALGASKLLKTLAKVKNDINAAGESEELANEYTRAVELFT  
 ECYSNDEDLAEQLLVYSCEAWGGSNCLELAVEATDQHFIAQPGVQNFLSKQWYGEISRDTKNWKIILCLF  
 IIPLVGGLVSRKPKIDKHKLLWYVAFVTFSPFVVFVSWNVVYIAFLLLFAYVLLMDFHVPHTPELI  
 LYALVFVLFCEVQRQWYMNQVNYFTDLWNVMDTLGLFYFIAGIVFRLHSSNKSSLYSGRVIFCLDYIIFT  
 LRLIHFIVSRNLGPKIIMLQRMLIDVFFFLFAVMMVAFGVARQGILRQNEQRWRWIFRSVIYEPYLA  
 MFGQVPSDVSDSTTYDFSHCTFSGNEKPLCVELDEHNLPRFPEWITIPLVCIYMLSTNILLVNLVAMFG  
 YTVGIVQENNDQVWKFQRYFLVQEYCNRLNIPFVVFVAFYFVMVVKCFKCCCKEKNMESNACCFRNEDN  
 ETLAWEGVMKENYLKINTKANDNSEEMRHRFRQLDSKLNLDKSLLEIANNIK

TRTRPLE – GFP Tag – V

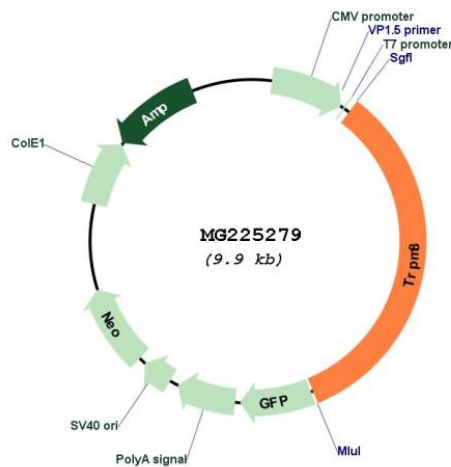
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM\_134252

ORF Size:

3312 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_134252.2</u>
<b>RefSeq Size:</b>	3869 bp
<b>RefSeq ORF:</b>	3315 bp
<b>Locus ID:</b>	171382
<b>UniProt ID:</b>	<u>Q8R4D5</u>
<b>Cytogenetics:</b>	1 D
<b>Gene Summary:</b>	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]