

## Product datasheet for **MC224982**

### Trpm7 (NM\_001164325) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Trpm7 (NM_001164325) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Trpm7
Synonyms:	2310022G15Rik; 4833414K03Rik; 5033407O22Rik; CHAK; CHAK1; Ltrp7; LTrpC-7; Ltrpc7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224982 representing NM_001164325 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCCCAGAAATCCTGGATAGAGAGCACTTTGACCAAGAGGGAGTGTGTATATATTATACCAAGCTCCA  
AAGACCCTCACAGATGTCTCCAGGATGTCAGATTTGTCAGCAACTTGTGAGATGTTCTGTGGTCTGTT  
GGTCAAGCAACATGCATGCTTTACTGCAAGTCTTGCCATGAAATACTCAGATGTGAAATGGGTGAACAC  
TTTAACCAAGCAATAGAAGAATGGTCTGTGGAAAAGCACACGGAGCAGAGCCCAACAGATGCTTATGGAG  
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 TCTCTCAGCCCTAACAGTAGATACATTGAAAACACTTACAGCCAGAAAGCTTCAGAAGCTAGTAAAGTG  
 CACAATGAGATCACACGAGAATTGAGTATTTCCAAACACTTGGCTCAGAATCTTATTGATGATGTTCTG  
 TAAGACCTTTGTGGAAGAAACCTAGTGCTGTAACACACTGAGTTCCTCTCTTCAAGGTGATCGGGA  
 AAGTAATAATCCTTTTCTTTGTAATATTTTTATGAAAGATGAAAAAGACCCCAATATAATCTGTTTGG  
 CAAGATTTGCCGTGATACCCAGAGAAAAGAAATCAACATTCAGAGGCTGGTTCCTCCTGTGGTGCT  
 TATTCCTCAAGTGTGTTCTCCCCAGAAATACGACAGAGACGACATGGGGTAGAAATGTTAAAAATATT  
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 TTCTCCAGTATACTGAATAACAGCATGTCTTCATGGTCTCAGCTAGGCCTCTGTGCCAAAATGAGTTT  
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 CATTATATAAAGAAGATACGGTCTACATCTGTCTCAGAGAAATACAACAACAGAGAGCAGCACAAAAG  
 CTCACATTTGCCTTAATCAGATGAAACCCAAATCCATACCATATTTCTCAAGGTTCTTGAAGTTTTCC  
 TGTTGACTGCCATTGAGCAGGGCAGTGGTTGCTGTAGAAGAGTGCATGACTGGTGAATTTAGAAAAATA

CAACAACAATAATGGTGATGAAATCATTCTACAATACTCTAGAAGAGATCATGCTAGCCTTTAGCCAC  
TGGACCTATGAATATACCAGAGGGGAGTTACTGGTACTTGACTTACAAGGAGTGGGAGAAAACTTGACTG  
ACCCATCTGTAATAAAAGCTGAAGAAAAAGATCCTGTGACATGGTTTTTGGCCCTGCCAATCTAGGAGA  
AGATGCAATAAAAACTTCAGAGCCAAACATCACTGTAATTCTTGCTGTCGAAAGCTTAACTTCCAGAT  
TTGAAGAGGAATGACTACAGCCTGATAAAATTATTTTCCTCAGGATGAGTCATCAGATTTGAATCTTC  
AATCTGGAATTCACCAAGAATCAGAAGCAACAATTCTGTTCTGCTGATGTTAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001164325
<b>Insert Size:</b>	5589 bp
<b>OTI Disclaimer:</b>	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).
<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_001164325.1, NP_001157797.1</u>
<b>RefSeq Size:</b>	7142 bp
<b>RefSeq ORF:</b>	5589 bp
<b>Locus ID:</b>	58800
<b>UniProt ID:</b>	<u>Q923J1</u>
<b>Cytogenetics:</b>	2 F1

**Gene Summary:**

Essential ion channel and serine/threonine-protein kinase. Divalent cation channel permeable to calcium and magnesium. Has a central role in magnesium ion homeostasis and in the regulation of anoxic neuronal cell death. Involved in TNF-induced necroptosis downstream of MLKL by mediating calcium influx. The kinase activity is essential for the channel function. May be involved in a fundamental process that adjusts plasma membrane divalent cation fluxes according to the metabolic state of the cell. Phosphorylates annexin A1 (ANXA1). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the coding region, compared to variant 1. This results in a shorter isoform (2), compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.