

## Product datasheet for **SC318683**

### TRPM7 (NM\_017672) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** TRPM7 (NM\_017672) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** TRPM7  
**Synonyms:** ALSPDC; CHAK; CHAK1; LTrpC-7; LTRPC7; TRP-PLIK  
**Vector:** pCMV6 series  
**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_017672, the custom clone sequence may differ by one or more nucleotides

```
ATGTCCCAGAAATCCTGGATAGAAAGCACTTTGACCAAGAGGGAATGTGTATATATTATA  
CCAAGTTCCAAGGACCTCACAGATGCCTTCCAGGATGTCAAATTTGTCAGCAACTCGTC  
AGGTGTTTTTGGTTCGCTTGGTCAAGCAACATGCTTGTCTTACTGCAAGTCTTGCCATG  
AAATACTCAGATGTGAAATGGGTGACCATTTAATCAGGCAATAGAAGAATGGTCTGTG  
GAAAAGCATACAGAACAGAGCCCAACGGATGCTTATGGAGTCATAAATTTCAAGGGGT  
TCTCATTCTACAGAGCTAAGTATGTGAGGCTATCATATGACACCAAACCTGAAGTCATT  
CTGCAACTTCTGCTTAAAGAATGGCAAATGGAGTTACCCAAACTGTTATCTCTGTACAT  
GGGGGCATGCAGAAATTTGAGCTTCAACCACGAATCAAGCAGTTGCTTGGAAAAGGCTT  
ATTAAGCTGCAGTTACAACCTGGAGCCTGGATTTAACTGGAGGAGTAAACACAGGTGTG  
GCAAAACATGTTGGAGATGCCCTCAAAGAACATGCTTCCAGATCATCTCGAAAGATTTGC  
ACTATCGGAATAGCTCCATGGGGAGTGATTGAAAACAGAAATGATCTTGTGGGAGAGAT  
GTGGTTGCTCCTTATCAAACCTTATTGAACCCCTGAGCAAATGAAATGTTTTGAATAAT  
CTGCATCCCATTTCATATTGGTGGATGATGGCACTGTTGGAAAGTATGGGGCGGAAGTC  
AGACTGAGAAGAGAAGTGAAGAACTATTAATCAGCAAAGAATTCATGCTAGGATTGGC  
CAGGGTGTCCCTGTGGTGGCATTATTTGAGGGTGGGCCAAATGTTATCCTCACAGTT  
CTTGAATACCTTCAGGAAAGCCCCCTGTTCCAGTAGTTGTGTGTAAGGAACAGGCAGA  
GCTGCAGATCTGCTAGCGTATATTCATAAACAACAGAAGAAGGAGGGAATCTTCTGAT  
GCAGCAGAGCCCCGATATTATTTCACTATCAAAAAACATTTAACTTTGGCCAGAATGAA  
GCACCTTCAATTTTCAAACACTGATGGAGTGCATGAAAAGAAAGGAGCTTATCACTGTT  
TTCCATATTGGGTCAGATGAACATCAAGATATAGATGTAGCAATACTTACTGCACGCTA  
AAAGGTAATGCATCTGCATTTGACCAGCTTATCCTTACATTGGCATGGGATAGAGTT  
GACATTGCCAAAATCATGTATTTGTTTATGGACAGCAGTGGCTGGTTGGATCCTTGAA  
CAAGCTATGCTTGATGCTTGTAAATGGATAGAGTTGCATTTGAAAACCTTCTTATTGAA  
AATGGAGTAAGCATGCATAAATTCCTTACCATTCCGAGACTGGAAGAAGTTTACAACACT  
AAACAAGTCCAATAATCCAATGCTGTTTCATCTTGTTCGAGACGTCAAACAGGGAAAT  
CTTCTCCAGGATATAAGATCACTCTGATTGATATAGGACTTGTATTGAATATCTCATG  
GGAGGAACCTACAGATGCACCTATACTAGGAAACGTTTTTCGATTAATATAAATAGTCTT  
GGTGGAAATAATCGGAGGTCTGGCCGAAATACCTCCAGCAGCACTCCTCAGTTGCGAAAG  
AGTCATGAATCTTTGGCAATAGGGCAGATAAAAAGGAAAAAATGAGGCATAACCATTTTC
```



[View online >](#)

ATTAAGACAGCACAGCCCTACCGACCAAAGATTGATACAGTTATGGAAGAAGGAAAGAAG  
 AAAAGAACCAAAGATGAAATTGTAGACATTGATGATCCAGAAACCAAGCGCTTTCCTTAT  
 CCCTTAATGAACTTTTAATTTGGGCTTGCCTTATGAAGAGGCAGGTCATGGCCCGTTTT  
 TTATGGCAACATGGTGAAGAATCAATGGCTAAAGCATTAGTTGCCTGTAAGATCTATCGT  
 TCAATGGCATATGAAGCAAAGCAGAGTGACCTGGTAGATGATACTTCAGAAGAATAAAA  
 CAGTATTCCAATGATTTTGGTCAGTTGGCCGTTGAATTATTAGAACAGTCCTTCAGACAA  
 GATGAAACCATGGCTATGAAATTGCTCACTTATGAACTGAAGAAGTGGAGTAATTCAACC  
 TGCCTTAAGTTAGCAGTTTCTTCAAGACTTAGACCTTTTGTAGCTCACACCTGTACACAA  
 ATGTTGTATCTGATATGTGGATGGGAAGGCTGAATATGAGGAAAAATTCTGGTACAAG  
 GTCATACTAAGCATTAGTTCCACCTGCCATATTGCTGTAGAGTATAAAAATAAGGCT  
 GAAATGTCCCATATCCCACAATCTCAAGATGCTCATCAGATGACAATGGATGACAGCGAA  
 AACAACTTTCAGAACATAACAGAAGAGATCCCCATGGAAGTGTTAAAGAAGTACGGATT  
 TTGGATAGTAATGAAGGAAAGAATGAGATGGAGATACAAATGAAATCAAAAAAGCTTCCA  
 ATTACGCGAAAAGTTTTATGCCTTTTATCATGCACCAATTGTAATACTGGTTTAAACAG  
 TTGGCATATTTAGGATTTCTGATGCTTTATACATTTGTGGTCTTGTACAAATGGAACAG  
 TTACCTTCAGTTCAAGAAATGGATTGTTATTGCTTATATTTTACTTATGCCATTGAGAAA  
 GTCCGTGAGATCTTTATGTCTGAAGCTGGGAAAGTAAACCAGAAGATTAAGTATGGTTT  
 AGTGATTACTTCAACATCAGTGATACAATTGCCATAATTTCTTCTTATTGGATTTGGA  
 CTAAGATTTGGAGCAAAATGGAACCTTTCGAAATGCATATGATAATCATGTTTTTGTGGCT  
 GGAAGATTAATTTACTGTCTTAACATAAATTTTGGTATGTGCGTTTGTAGATTTTCTA  
 GCTGTAATCAACAGGCAGGACCTTATGTAATGATGATTGGAAAAATGGTGGCCAATATG  
 TTCTACATTTGATGATTATGGCTCTTGTATTACTTAGTTTTGGTGTCCAGAAAAGGCA  
 ATACTTTTATCCTCATGAAGCACCATTGGACTCTTGTAAAGATATAGTTTTTCCACCA  
 TACTGGATGATTTTTGGTGAAGTTTATGCATACGAAATGATGTGTGCAAAATGATTTCT  
 GTTATCCCTCAAATCTGTGGTCTGGGACGTGGTTGACTCCATTTCTTCAAGCAGTCTAC  
 CTCTTTGTACAGTATATCATTATGGTTAATCTTCTTATTGCATTTTTCAACAATGTGAT  
 TTACAAGTGAAGGCAATTTCCAATATTGTATGGAAGTACCAGCGTTATCATTTTTATTATG  
 GCTTATCATGAGAAACAGTTCTGCCTCCTCCACTTATCATTCTTAGCCATATAGTTTCT  
 CTGTTTTGCTGCATATGTAAGAGAAGAAAGAAAGATAAGACTCCGATGGACCAAACTT  
 TTCTTAACAGAAGAAGATCAAAAGAACTTCATGATTTTGAAGAGCAGTGTGTTGAAATG  
 TATTTCAATGAAAAGATGACAAATTTTCTTCTGGGAGTGAAGAGAGAATTCGTGTCCT  
 TTTGAAAGAGTGAACAGATGTGCATTCAGATTAAAGAAGTTGGAGATCGTGTCAACTAC  
 ATAAAAAGATCATTACAATCATTAGATTCTCAAATTTGGCCATTTGCAAGATCTTTCAGCC  
 CTGACGGTAGATACATTA AAAACACTCACTGCCAGAAAGCGTCGGAAGCTAGCAAAAGTT  
 CATAATGAAATCACACGAGAAGTGGAGTTCCTTCAAACTTGGCTCAAAACCTTATTGAT  
 GATGGTCTGTAAAGCCTTCTGTATGGA AAAAGCATGGTGTGTAATACTTAGCTCC  
 TCTCTTCTCAAGGTGATCTTGAAGTAATAATCCTTTTCTTGTGTAATTTTTAATGAAA  
 GATGACAAAGATCCCCAGTGAATATATTTGGTCAAGACTTACCTGCAGTACCCAGAGA  
 AAAGAATTTAATTTTCCAGAGGCTGGTTCCTCTTCTGGTGCCTTATTTCCCAAGTGTGTT  
 TCCCTCCAGAAGTGCACAGAGACTACATGGGGTAGAACTCTTAAAAATATTTAATAAAA  
 AATCAAAAATTAGGCAGTTCATCTACTAGCATACCACATCTGTATCCCCACCAACCAAAA  
 TTTTTTGTAGTACACCATCTCAGCCAAGTTGCAAAAAGCCACTTGGAACTGGAACCAAAA  
 GATCAAGAAACTGTTTGTCTAAAGCTACAGAAGGAGATAATACAGAATTTGGAGCATT  
 GTAGGACACAGAGATAGCATGGATTTACAGAGGTTTAAAGAAACATCAAACAAGATAAAA  
 ATACTATCCAATAACAATACTTCTGAAAACACTTTGAAACGAGTGAAGTCTCTTGTGGA  
 TTTACTGACTGTCACAGAAGTCCATTCCTGTTTCAAAAACAGCAGAAAAAATCAGT  
 AGAAGGCCATCTACCGAAGACACTCATGAAGTAGATTCAAAGCAGCTTTAATACCGGAT  
 TGGTTACAAGATAGACCATCAAACAGAGAAATGCCATCTGAAGAAGGAACATTAATGGT  
 CTCACTTCTCATTTAAGCCAGCTATGGATACAAATTAATTTTACAGCTGTGGAAGA  
 AATAACTTGATGAGGTTATCACAGAGCATTCCATTTACACCTGTGCCTCAAGAGGGGAG  
 CCTGTCACAGTGTATCGTTTGAAGAGAGTTTCAACCAACATACTAAATAACAGCATGTCT  
 TCTTGGTCAACTAGGCCTCTGTGCCAAAATAGAGTTTTTAAAGCAAAGAGGAGATGGGA

```

GGAGGTTTACGAAGAGCTGTCAAAGTACAGTGTACCTGGTCAGAACATGATATCCTCAAA
TCAGGGCATCTTTATATTATCAAATCTTTTCTCCAGAGGTGGTTAATACATGGTCAAGT
ATTTACAAAGAAGATACAGTTCTGCATCTCTGTCTGAGAGAAATCAACAACAGAGAGCA
GCACAAAAGCTTACGTTTGCCTTAAATCAAATGAAACCCAAATCCATACCATATTCTCCA
AGGTTCCCTGAAGTTTTCTGCTGTATTGCCATTACAGCAGGACAGTGGTTTGCTGTGGAA
GAATGTATGACTGGAGAATTTAGAAAATACAACAATAAATGGAGATGAGATTATTCCA
ACTAATACTCTGGAAGAGATCATGCTAGCCTTTAGCCACTGGACTTACGAATATACAAGA
GGGGAGTTACTGGTACTTGATTTGCAAGGTGTTGGTGAAAATTTGACTGACCCATCTGTG
ATAAAAGCAGAAGAAAAGAGATCCTGTGATATGGTTTTTGGCCAGCAAATCTAGGAGAA
GATGCAATTA AAAACTTCAGAGCAAAACATCACTGTAATTCTTGCTGTAGAAAGCTTAA
CTTCCAGATCTGAAGAGGAATGATTATACGCCTGATAAAATTATATTTCTCAGGATGAG
CCTTCAGATTTGAATCTTCAGCCTGAAATCCACCAAAGAATCAGAATCAACTAATTCT
GTTGCTGATGTTA
    
```

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_017672

**OTI Disclaimer:**

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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_017672.3](#), [NP\\_060142.3](#)

**RefSeq Size:**

7255 bp

**RefSeq ORF:**

5598 bp

Locus ID: 54822

UniProt ID: [Q96QT4](#)

Cytogenetics: 15q21.2

Protein Families: Druggable Genome, Ion Channels: Transient receptor potential, Protein Kinase, Transmembrane

Gene Summary: This gene belongs to the melastatin subfamily of transient receptor potential family of ion channels. The protein encoded by this gene is both an ion channel and a serine/threonine protein kinase. The kinase activity is essential for the ion channel function, which serves to increase intracellular calcium levels and to help regulate magnesium ion homeostasis. The encoded protein is involved in cytoskeletal organization, cell adhesion, cell migration and organogenesis. Defects in this gene are a cause of amyotrophic lateral sclerosis-parkinsonism/dementia complex of Guam. The gene may also be associated with defects of cardiac function. [provided by RefSeq, Aug 2017]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.