

## Product datasheet for MR202936

### Tmem142a (BC023149) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Tmem142a (BC023149) Mouse Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Tmem142a  
 Synonyms: D730049H07Rik; orai-1; Tmem142a  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >MR202936 representing BC023149  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGAGCCTCAACGAGCACTCGATGCAGGCGCTGTCTGGCGCAAGCTCTACTTAAGCCGCGCCAAGCTCA  
 AAGCTTCCAGCCGGACCTCGGCTCTGCTCTCCGGCTTCGCCATGGTAGCGATGGTGAAGTCCAGCTGGA  
 CACAGACCATGACTACCCACCAGGGTTGCTCATCGTCTTAGTGCCTGCACCACAGTGTAGTGGCCGTG  
 CACCTGTTTGCCTCATGATCAGCACCTGCATCCTGCCAACATCGAGGCTGTGAGCAACGTCCACAACC  
 TCAACTCGGTCAAAGAGTCAACCCACGAGCGCATGCATCGCCACATCGAGCTGGCCTGGCCTTCTCCAC  
 GGTTCATCGGGACGCTGTTTTCTAGCAGAGGTGCTGCTGCTGCTGGTCAAGTCTTACCTCTCAAG  
 AGGCAAGCGGGACAGCCAAGCCCCACCAAGCCTCCCGTGAATCAGTCATCGTCGCCAACACAGCGACA  
 GCAGCGGCATCACCCGGGTGAGGCGGCAGCCATTGCCTCCACCGCCATCATGGTTCCTGTGGCCTGGT  
 TTTTATCGTCTTTGCCGTTCACTTCTACCGTTCCTGGTCAGCCATAAGACGGACCGGCAGTTCACAGGAG  
 CTCAATGAGCTGGCCGAGTTTGCCCGCTTGCCAGGACAGTGGACCACAGAGGGGACCATTCTCTAACAC  
 CGGCACCCACTATGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR202936 representing BC023149  
Red=Cloning site Green=Tags(s)

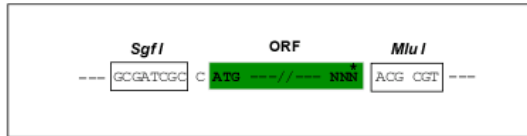
MSLNEHSMQALSWRKLYLSRAKLGKASSRTSALLSGFAMVAMVEVQLDTHDYPPGLLIVFSACTTVLVAV  
 HLFALMISTCILPNIEAVSNVHNLNSVKESPHERMHRHIELAWAFSTVIGTLLFLAEVLLCWVKFLPLK  
 RQAGQPSPKPPAESVIVANHSOSSGITPGEAAAIASTAIMVPCGLVFIIVFAVHFYRSLVSHKTRDQFQE  
 LNELAEFARLQDQLDHRGDHSLTPGTHYA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** BC023149

**ORF Size:** 717 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:** [BC023149.1](#)

**RefSeq Size:** 1675 bp

**RefSeq ORF:** 719 bp

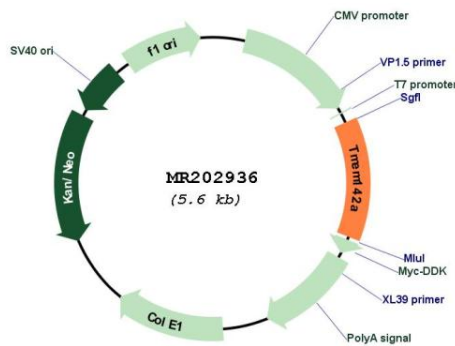
**Locus ID:** 109305

**Cytogenetics:** 5 F

**MW:** 61.4 kDa

**Gene Summary:** Ca(2+) release-activated Ca(2+) (CRAC) channel subunit which mediates Ca(2+) influx following depletion of intracellular Ca(2+) stores and channel activation by the Ca(2+) sensor, STIM1. CRAC channels are the main pathway for Ca(2+) influx in T-cells and promote the immune response to pathogens by activating the transcription factor NFAT.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR202936