

## Product datasheet for **MC219147**

### **Tmem108 (NM\_178638) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tmem108 (NM_178638) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tmem108
Synonyms:	AI462967; B130017P16Rik; R74726
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC219147 representing NM\_178638  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAAGAGAAGTTTACAGCCCTCTATTGCCAACTATTAAGCTTTCTCCTGACCTTGGCACTGACCAAAG  
CACTGGTACTCGCTGTCCACGAACCATCTCCAGGGAATCTCTACAGACCCTCCCCTCAGGCAGCCCCC  
AGGCACCATGGTGACAGCACCTCACAGCCCTACCAGACTCTCCTGTGTGACTGACACTGAATCCTACACCT  
GATGGACCCTCATCACAGGCTGCAGCTACTCTGGAACTACAGTATCTCATCCAGAAGGGCACCCCTCCTA  
CAGACACCACGTCTACAGTGATGGGGACAGCTGCCGTCCCGCATCCCGAAAGTCTCTGCCACAGGGTC  
CCCTCCAGCTGCCATGACAACCACACCCTCCCACTCAGAGAGCCTCCCCCAGGGGATGCTACCCCCACC  
ACTACCCTGCCAACAAGCCAGCAGGAACCACCAGCCGCCACAGTGGCCCCACGGGCCACCCTCGTC  
GGCCCCCAGACCCCGGGCTCTCCAGGAAGGGGGCTGGTGGTTCGACTCGACTCTCACACCCGTACC  
GGGTGGCCACTTGCCAGGAAGGAAAGCCAGAGGGGACGAAACCAGAGCTCAGCACATCTGGGGCCGAAG  
CGTCTCTGGGGAAGATCTTCAAATCTACAAGGGTAACCTTACGGGGTCTGCGGAGCCAGACCCCTCCG  
CGCTCACGCCAGGACCCCACTCGGGGGTACTTCTCTTCGACACAGCCCCAGACAGTGTCTCCAGCTAC  
AGCACCCAGAAGCACCTCACGGGTGCCCCCACTTCCCTGGTACCTGTAAGGACAAGCCAGGCTTT  
ATCAGATCCAACCCAGGGGAGTGGCCCCATCCTTACCAGCCAGGAGGGGAGCCAGCTGCCACAGCAGCCA  
CAGGTGCCCTGCCAGTACACAGCCTGCCCCAGTGCTTCTCAGACCCCTCATGGTGACGTGCAGGACAG  
CGCCAGCCACAGTACTTTGGCTTGTGTACACCTGACACTGACAGACCCACGTCTGCCAGCTCCGGG  
GTCTTTCAGGGTCCACAGGGCCACCCAGGCTGCCTTTGATGCCACTGTCTCAGCCCTTCCCCGGGCA  
TCCCTCAGGGACCATCTGCAACCCCTCAGGCCCAACCCGGCCCTTGGGGTCTCAGAAAGCACTGTTTC  
TCCAGCAGAGGAAGAGGCTGAGGCCTCCCCACGACAACCGACAGGGGCCCCAGACCTCTCTCCACAGTG  
CTGTCCACAGCCACGGGCAACTTCTCAACCGCTGGTCCCTGCTGGGACCTGGAAGCCGGGACTGTGG  
CCAACATCTCCCAGTGGCTGAAGGGGACAAACCCAGCACAGAGCCACCATCTGCTTGAGCAAGATGGA  
TATTGCCTGGGTTCATCGTGGCCATCAGTGTCCCATCTCCTCCTGCTCGGTCCTGTTGACAGTGTGTGC  
ATGAGGAGGAAGAAGAAGACGGCCAACCCCTGAGAACACCTGAGTACTGGAACAATGCCATCACAATGG  
ACTACTTCAACAGACACGCGGTGGAGCTCCCGAGGGAGATCCAGTCCCTAGAGACCTCAGAGGACCAGCT  
CTCAGAGCCCCGCTCCCCAGCAATGGCGACTATCGAGACTGGGATGGTCTCGTGAACCCCTTCTGC  
CAGGAAACTGTTCGTGGGAAACGACCAAGTTTCCGAGATCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_178638

**Insert Size:** 1725 bp

**OTI Disclaimer:** 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).

**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\\_178638.4](#), [NP\\_848753.1](#)

**RefSeq Size:** 3692 bp

**RefSeq ORF:** 1725 bp

**Locus ID:** 81907

**UniProt ID:** [Q8BHE4](#)

**Cytogenetics:** 9 F1

**Gene Summary:** Transmembrane protein required for proper cognitive functions. Involved in the development of dentate gyrus (DG) neuron circuitry, is necessary for AMPA receptors surface expression and proper excitatory postsynaptic currents of DG granule neurons (PubMed:28096412). Regulates the organization and stability of the microtubule network of sensory neurons to allow axonal transport. Through the interaction with DST, mediates the docking of the dynein/dynactin motor complex to vesicle cargos for retrograde axonal transport (PubMed:17287360). In hippocampal neurons, required for BDNF-dependent dendrite outgrowth (PubMed:21849472). Cooperates with SH3GL2 and recruits the WAVE1 complex to facilitate actin-dependent BDNF:NTRK2 early endocytic trafficking and mediate signaling from early endosomes (PubMed:21849472, PubMed:27605705).[UniProtKB/Swiss-Prot Function]