

## Product datasheet for **MC216184**

### Gramd1c (NM\_001172107) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd1c (NM_001172107) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gramd1c
Synonyms:	4921521N14Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC216184 representing NM\_001172107  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGAACACTTGTATCAGTTGAAGAAAATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCGTGGATGACG  
 CTGGGAAAGAGATGAGAAGTTCTCCAAGGCCGTGAGCTTTACACAGGAGTCAGTTAGCAGAGCTTCAGA  
 AACAGAGCCATTGGACGGAACTCACCGAAAAGAGGACTAGGAAAAGAGGATTCCAGAGCGAGAGAAAAT  
 GTGAGAAAAAGTCTTCGCTAGCTTCAGAAAAGAGGATAAGCAGAGCACCTCCAAGTCACTGGACTTGA  
 ATAAGAATGAGTACCTTTCTCTGGATAAAAGCAGCACTTCAGATTCTGTGGACGAAGAAAATATCCCGA  
 GAAAGATCTTCAAGGAAGACTTTATATCAACCGTGTCTTTCACATCAGTGTGAGAGAATGTTTCAACTG  
 CTGTTCACTAGCTCACACTTTATGCAGAGATTTGCAAATCTAGAAAATAATAGATGTGGTATCTACCC  
 CCTGGACAGTTGAATCTGGAGGCAATCAGCTGCGAACCATGACCTATACCATAGTCTCAGCAACCCGCT  
 AACTGGGAAGTACTGTGCCACAGAAAAGCAGACCCTGTATAAAGAGAGCCGGGAAGCACAGTTCTAC  
 CTGGTAGACTCCGAAGTGTGACACATGATGTGCCCTATCACGACTACTTCTACACTTTGAACAGATACT  
 GTATCGTGAGATCTGAAAACAGAGATGCAGGCTGAGAGTCTCCACAGACTTGAAGTACAGGAAAACAAC  
 ATGGGGCCTTATCAAGTCTTAATTGAGAAGAATTCCTGGAGTTCACTGGAGAGCTACTTCAAAAAGCTT  
 GAATCCGATTTGTAAATGGAAGAGTCTGTGTTGAGTCAATCCATTGAAGATGCTGGAAAACATAGCAGCC  
 TACGCCGAGAAGGCGGACCTTGAACCGGACAGCAGAGCCGTTCCAAGCTGTCTCTCAGCGCTCTTC  
 CACAGATTTGGGCTTGGAGGCCAAAGTAGATGTTACAGGAAAGAGAAAAGACCGTGGACAGTTATGACACC  
 GCCCTTATTGTGGTGTGAGCATATTCTGTCTGCTGCTGTTCTGCTGAATGTGACACTATTTCTGAAGC  
 TGTCAAAGATAGAACACGCTACCCAGTCTTACCAGTTCACCTCCAGGGAGAAAAATCTTTAAATTT  
 AGTCTCTGACAGGTTCTCAAGAACAGAAAATATTCAAAAGAACAAGATCAGGCCACCGCTAAAAGGA  
 GTACTCCAAGATTCCATAGTGATGTTGGAACAGCTGAAGAGCTCACTCATTATGCTTCAAAAAACCTTTG  
 ATTTACTAAATAAGAACAAGTCTGGGGTGGCTGTGGAGAGCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001172107

**Insert Size:** 1374 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\\_001172107.1](#), [NP\\_001165578.1](#)

RefSeq Size: 3276 bp

RefSeq ORF: 1374 bp

Locus ID: 207798

UniProt ID: [Q8CI52](#)

Cytogenetics: 16 B4

**Gene Summary:** Cholesterol transporter that mediates non-vesicular transport of cholesterol from the plasma membrane (PM) to the endoplasmic reticulum (ER) (PubMed:30220461). Contains unique domains for binding cholesterol and the PM, thereby serving as a molecular bridge for the transfer of cholesterol from the PM to the ER (PubMed:30220461). Plays a crucial role in cholesterol homeostasis and has the unique ability to localize to the PM based on the level of membrane cholesterol (PubMed:30220461). In lipid-poor conditions localizes to the ER membrane and in response to excess cholesterol in the PM is recruited to the endoplasmic reticulum-plasma membrane contact sites (EPCS) which is mediated by the GRAM domain (PubMed:30220461). At the EPCS, the sterol-binding VAS<sub>t</sub>/AS<sub>T</sub>ER domain binds to the cholesterol in the PM and facilitates its transfer from the PM to ER (PubMed:30220461). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) represents use of an alternate promoter and 5' UTR, compared to variant 1. Variants 1 and 2 encode the same protein. 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.