

Product datasheet for **MG216904**

Gramd1c (NM_001172107) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd1c (NM_001172107) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gramd1c
Synonyms:	4921521N14Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG216904 representing NM_001172107
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAACACTTGTATCAGTTGAAGAAAATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCGTGGATGACG
 CTGGGAAAGAGATGAGAAGTTCTCCAAGGCCGTCAGCTTTACACAGGAGTCAGTTAGCAGAGCTTCAGA
 AACAGAGCCATTGGACGGGAACCTACCGAAAAGAGGACTAGGAAAAGAGGATTCCAGAGCGAGAGAAAAT
 GTGAGAAAAAGTCTTCGCTAGCTTCAGAAAAGAGGATAAGCAGAGCACCTCCAAGTCACTGGACTTGA
 ATAAGAATGAGTACCTTTCTCTGGATAAAAGCAGCACTTCAGATTCTGTGGACGAAGAAAATATCCCGA
 GAAAGATCTTCAAGGAAGACTTTATATCAACCGTGTCTTTCACATCAGTGTGAGAGAATGTTGAACTG
 CTGTTCACTAGCTCACACTTTATGCAGAGATTTGCAAATCTAGAAAATAATAGATGTGGTATCTACCC
 CCTGGACAGTTGAATCTGGAGGCAATCAGCTGCGAACCATGACCTATACCATAGTCTCAGCAACCCGCT
 AACTGGGAAGTATACTGTGCCACAGAAAAGCAGACCCTGTATAAAGAGAGCCGGAAGCACAGTCTAC
 CTGGTAGACTCCGAAGTCTGACACATGATGTGCCCTATCACGACTACTTCTACACTTTGAACAGATACT
 GTATCGTGAGATCTGAAAACAGAGATGCAGGCTGAGAGTCTCCACAGACTTGAAGTACAGGAAAACAAC
 ATGGGGCCTTATCAAGTCTTAATTGAGAAGAATTCTGGAGTTCACTGGAGAGCTACTTCAAAAAGCTT
 GAATCCGATTTGTTAATGGAAGAGTCTGTGTTGAGTCAATCCATTGAAGATGCTGAAAACATAGCAGCC
 TACGCCGAGAAGGCGGACCTTGAACCGGACAGCAGAGCCGTTCCAAGCTGTCTCTCAGCGCTCTTC
 CACAGATTTGGGCTTTCGAGGCCAAAGTAGATGTTACAGGAAAGAGAAAGACCGTGGACAGTTATGACACC
 GCCCTTATTGTGGTATGAGCATATTCTGTCTGCTGCTGTTCTGCTGAATGTGACACTATTCTGAAGC
 TGTCAAAGATAGAACACGCTACCCAGTCTTCTACCAGTTCACCTCCAGGGAGAAAATCTTTAAATTT
 AGTCTCTGACAGGTTCTCAAGAACAGAAAATATTCAAAGAACAAGATCAGGCCACCCTAAAAGGA
 GTACTCAAAGATTCCATAGTGATGTTGGAACAGCTGAAGAGCTCACTCATTATGCTTCAAAAACCTTTG
 ATTTACTAAATAAGAACAAGTCTGGGGTGGCTGTGGAGAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG216904 representing NM_001172107
 Red=Cloning site Green=Tags(s)

MEHLLSVEENVQPRSPGRSSVDDAGERDEKFSKAVSFTQESVSRASETEPLDGNPDKRGLGKEDSQSERN
 VRKSPSLASEKRISRAPSKSLDLNKNYLSLDSSTSDSVEENIPEKDLQGRLYINRVFHI SAERMFEL
 LFTSSHFMQRFANSRNIIDVVSTPWTVESGGNQLRTMTYITIVLSNPLTGKYTAATEKQTL YKESREAQFY
 LVDSEVLTHDVPYHDYFYTLNRYCIVRSKQRCRLRVSTDLKRYKQPWGLIKSLIEKNSWSLESYFKKL
 ESDLMEESVLSQSIEDAGKHSSLRRRRRLNRTAEPVPKLSSQRSSTDLGFEAKVDVTGKRKTVDSDYD
 ALIVVMSIFLLLLVLLNVTFLKLSKIEHATQSFYQLHLQGEKSLNLVSDRF SR TENIQKNKDQAHRLKG
 VLQDSIVMLEQLKSSLI MLQKTFDLLNKNKSGVAVES

TRTRPLE – GFP Tag – V

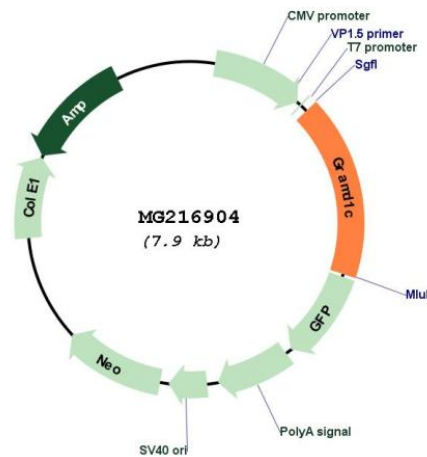
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001172107

ORF Size: 1371 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:	<ol style="list-style-type: none">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:	<u>NM_001172107.1, NP_001165578.1</u>
RefSeq Size:	3276 bp
RefSeq ORF:	1374 bp
Locus ID:	207798
UniProt ID:	<u>Q8CI52</u>
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 VASt/ASTER domain binds to the cholesterol in the PM and facilitates its transfer from the PM to ER (PubMed:30220461). [UniProtKB/Swiss-Prot Function]