

Product datasheet for **MR216904**

Gramd1c (NM_001172107) Mouse Tagged ORF Clone

Product data:

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



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ORF Nucleotide Sequence:

>MR216904 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAACACTTGTATCAGTTGAAGAAAATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCGTGGATGACG
 CTGGGGAAAGAGATGAGAAGTTCTCCAAGGCCGTAGCTTTACACAGGAGTCAGTTAGCAGAGCTTCAGA
 AACAGAGCCATTGGACGGGAACTCACCGAAAAGAGGACTAGGAAAAGAGGATTCCAGAGCGAGAGAAAAT
 GTGAGAAAAAGTCTTCGCTAGCTTCAGAAAAGAGGATAAGCAGAGCACCTCCAAGTCACTGGACTTGA
 ATAAGAATGAGTACCTTTCTCTGGATAAAAGCAGCACTTCAGATTCTGTGGACGAAGAAAATATCCCGA
 GAAAGATCTTCAAGGAAGACTTTATATCAACCGTGTCTTTCACATCAGTGTGAGAGAATGTTGAACTG
 CTGTTCACTAGCTCACACTTTATGCAGAGATTTGCAAATCTAGAAAATAATAGATGTGGTATCTACCC
 CCTGGACAGTTGAATCTGGAGGCAATCAGCTGCGAACCATGACCTATACCATAGTCTCAGCAACCCGCT
 AACTGGGAAGTACTGTGCCACAGAAAAGCAGACCCTGTATAAAGAGAGCCGGGAAGCACAGTTCTAC
 CTGGTAGACTCCGAAGTCTGACACATGATGTGCCCTATCACGACTACTTCTACACTTTGAACAGATACT
 GTATCGTGAGATCTGAAAACAGAGATGCAGGCTGAGAGTCTCCACAGACTTGAAGTACAGGAAAACAAC
 ATGGGGCCTTATCAAGTCTTAATTGAGAAGAATTCTGGAGTTCACTGGAGAGCTACTTCAAAAAGCTT
 GAATCCGATTTGTTAATGGAAGAGTCTGTGTTGAGTCAATCCATTGAAGATGCTGGAAAACATAGCAGCC
 TACGCCGAGAAGGCGGACCTTGAACCGGACAGCAGAGCCGTTCCAAGCTGTCTCTCAGCGCTCTTC
 CACAGATTTGGGCTTCGAGGCCAAAGTAGATGTTACAGGAAAGAGAAAGACCGTGGACAGTTATGACACC
 GCCCTTATTGTGGTATGAGCATATTCTGTCTGCTGCTGTTCTGCTGAATGTGACACTATTTCTGAAGC
 TGTCAAAGATAGAACACGCTACCCAGTCTTACCAGCTTACCTCCAGGGAGAAAAATCTTTAAATTT
 AGTCTCTGACAGTTCTCAAGAACAGAAAATATTCAAAGAACAAGATCAGGCCACCGCTAAAAGGA
 GTACTCCAAGATTCCATAGTGATGTTGGAACAGCTGAAGAGCTCACTCATTATGCTTCAAAAAACCTTTG
 ATTTACTAAATAAGAACAAGTCTGGGGTGGCTGTGGAGAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR216904 protein sequence
 Red=Cloning site Green=Tags(s)

MEHLLSVEENVQPRSPGRSSVDDAGERDEKFSKAVSFTQESVSRASETEPLDGNPDKRGLGKEDSQSERN
 VRKSPSLASEKRI SRAPSKSLDLNKN EYLSL DKSSTSDSVDEENIPEKDLQGRLYINRVFHI SAERMFEL
 LFTSSHFMQRFANSRNIIDVVSTPWTVESGGNQLRTMTYITIVLSNPLTGKYTAATEKQTLYKESREAQFY
 LVDSEVLTHDVPYHDYFYTLNRYCIVRSKQRCRLRVSTDLK YRKQPWGLIKSLIEKNSWSLESYFKKL
 ESDLMEESVLSQSI EDAGKHSSLR RRRRTLNR T AEPV PKLSSQRSSTDLGFEAKVDVTGKRKTVDSYDT
 ALIVVMSIFLLLLVLLNVTLFLKLSKIEHATQSFYQLHLQGEKSLNLSVDRFSRTENIQKNKDQAHRLKQ
 VLQDSIVMLEQLKSSLIMLQKTFDLLNKNKSGVAVES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001172107

ORF Size: 1374 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: [NM_001172107.1](#), [NP_001165578.1](#)

RefSeq Size: 3276 bp

RefSeq ORF: 1374 bp

Locus ID: 207798

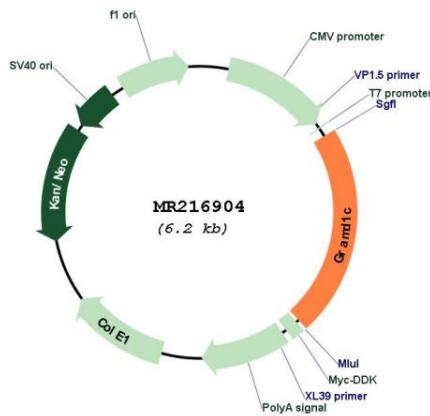
UniProt ID: [Q8CI52](#)

Cytogenetics: 16 B4

MW: 52.2 kDa

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_t/AS_TER domain binds to the cholesterol in the PM and facilitates its transfer from the PM to ER (PubMed:30220461). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR216904