

## Product datasheet for **RG206376**

### GRAMD1C (NM\_017577) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRAMD1C (NM_017577) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRAMD1C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG206376 representing NM\_017577  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGGAGGGCGCTCCGACTGTCCGTGAGGTGATGAATGAAGGGGATTCAAGCCTTGCCACCGACTTACAGG  
AAGATGTAGAGGAAAATCCTAGTCCAACCTGTGGAAGAGAATAATGTGGTAGTTAAAAAACAGGGCCAAA  
TTTACATAAATTGGAGTGGTACTGGAGCTTTTGGATTTCAAGTCCACCTATAAAGACAGGAATGAGGAA  
TACAGAAGACAGTTCACACATCTACCTGATACAGAGAGGCTGATAGCAGATTATGCTTGTGCTCTTCAGA  
GGGACATTTTGTTCAGGGACGACTATACCTTTAGAAAAGTGGCTATGTTTCTATAGCAACATCTTCAG  
ATGGGAAACTACAATTTCTATTGCTTTAAAGAATAAACCTTCATGACCAAGGAAAAAAGTCTCGACTC  
ATCCCAAACGCTATCCAGATAGTTACAGAAAGTAAAAGTTTTTCTCACATCTTTGGTCCAGGGATA  
GAAGTTACCTCAGTATCTTTAGGTTGTGCAGAATGTATTATTAGATAAGAGCCTGACTAGACAGGAATT  
CTGGCAACTGCTCCAGCAGAAGTATGGCACTGAGCTAGGTTTAAATGCTGAGGAGATGGAAAAGTGTCA  
CTGTCGATTGAGGATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCTTGGATGACTCTGGGAGAGAGATG  
AAAAATTATCCAAGTCAATCAGTTTTACCAGTGAATCAATTAGTCGGGTTTCAGAAAACAGAGTCATTGCA  
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TTACCAACTTTGGAAAAGAAGTTAACTAGAGTGCCATCAAAGTCACTGGACTTGAATAAAAAATGAATATC  
TTTCTCTGGACAAAAGCAGCACTTCAGATTCTGTTGATGAAGAAAATGTTCTGAGAAAAGATCTTCATGG  
AAGACTTTTTATCAACCGTATTTTTATATCAGTGCTGACAGAATGTTTGAATTGCTCTTTACCAGTTCA  
CGCTTTATGCAGAAAATTTGCCAGTTCTAGAAAATAAATAGATGTAGTATCTACCCCTGGACTGCAGAAC  
TTGGAGGTGATCAGCTGAGAAGCATGACCTACACTATAGTCCTTAAATAGTCCACTTACTGGAAAATGCAC  
TGCTGCCACTGAAAAGCAGACACTGTATAAAGAAAAGTCGGGAAGCACGATTTTATTTGGTAGATTCAGAA  
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CAAAACAGAAAATGCAGGCTAAGAGTTTCCACAGATTTGAAATACAGAAAACAGCCATGGGGCCTTGTCAA  
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GAACCTTCAACCGAACAGCAGAAAACAGTTCCTAAACTTTCTCTCAGCATTCTCTGGAGATGTGGGCTT  
AGGTGCCAAAGGGGATATTACAGGAAAAGAAAAGAAAATGAAAAGTATAACGTCACTCTTATTGTGGTA  
ATGAGTATTTTTGTGTTGTTATTAGTTTTGTTGAATGTGACACTGTTTCTGAAGCTGTCAAAGATAGAAC  
ATGCTGCTCAGTCTTTTACCGTCTCCGCTCCAAGAAGAGAAAATCTTTAAATTTAGCCTCTGATATGGT  
GTCAAAGAGCAGAAAATTTACAGAGAATAAAGATCAGGCCATCGTTTAAAGGGAGTGCTCCGAGACTCC  
ATAGTGATGCTTGAACAGCTGAAGAGCTCACTCATTATGCTTCAGAAAACGTTTATGCTACTAAATAAGA  
ATAAGACTGGCATGGCTGTTGAAAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG206376 representing NM\_017577  
Red=Cloning site Green=Tags(s)

```
MEGAPTVRQVMNEGDSSLATDLQEDVEENPSPTVEENNVVKKQGPNLHNWSDWSFWISSSTYKDRNEE
YRRQFTHLPDTERLIADYACALQRDILLQGRLYLSENWLCFYSNIFRWETTISIALKNITFMTKKEKTARL
IPNAIQIVTESEKFFFTSFGADRSYLSIFRLWQNVLLDKSLTRQEFWQLLQQNYGTELGLNAAEEMENLS
LSIEDVQPRSPGRSSLDSDGERDEKLSKISFTSEISIRVSETESEFDGNSKGGGLKKEESQNEKQTKKSL
LPTLEKKLTRVPSKSLDLNKNEYLSDKSSTSDSVDEENVPEKDLHGRLFINRIFHISADRMFELLFTSS
RFMQKFASSRNIIDVVSTPWTAE LGGDQLRTMTYTIIVLNSPLTGKCTAATEKQTL YKESREARFYLV DSE
VLTHDVPYHDYFYTVNRYCIIRSSKQKCLR VSTDLK YRKQPWGLVKSLIEKNSWSSLEDYFKQLES D LL
IEESVLNQAIEDPGKLTGLRRRRRTFNRTAETVPKLS SQHSSGDVGLGAKGDITGKKKEMENYNVTLIVV
MSIFVLLLVLNVTLFLKLSKIEHAAQSFYRLRLQEEKSLNLASDMVSRAETIQKNKDAQHRLKGVLRDS
IVMLEQLKSSLIMLQKTFDLLNKNKTGMAVES
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_017577

**ORF Size:** 1986 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\\_017577.5](#)

**RefSeq Size:** 3770 bp

**RefSeq ORF:** 1989 bp

**Locus ID:** 54762

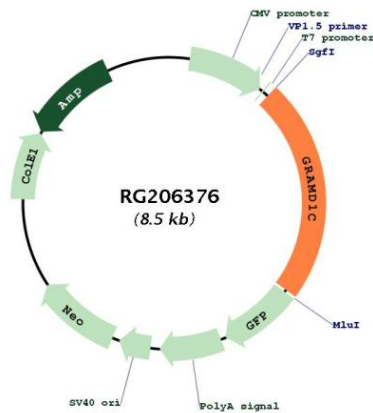
**UniProt ID:** [Q8IYS0](#)

**Cytogenetics:** 3q13.31

**Protein Families:** Transmembrane

**Gene Summary:** Cholesterol transporter that mediates non-vesicular transport of cholesterol from the plasma membrane (PM) to the endoplasmic reticulum (ER) (By similarity). 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 (By similarity). Plays a crucial role in cholesterol homeostasis and has the unique ability to localize to the PM based on the level of membrane cholesterol (By similarity). 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 (By similarity). 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 (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RG206376