

## Product datasheet for **RG230115**

### GRAMD1C (NM\_001172105) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRAMD1C (NM_001172105) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRAMD1C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG230115 representing NM_001172105 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAAACTTGTCACTGTCGATTGAGGATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCTTGGATGACT  
CTGGGGAGAGAGATGAAAAATTATCCAAGTCAATCAGTTTTACCAGTGAATCAATTAGTCGGGTTTCAGA  
AACAGAGTCATTCGATGGAAATTCATCAAAAGGAGGATTAGGCAAAGAGGAGTCCCAAAATGAGAAACAG  
ACCAAAAAGAGTCTCTTACCAACTTTGGAAAAGAAGTTAACTAGAGTGCCATCAAAGTCACTGGACTTGA  
ATAAAAATGAATATCTTTCTCTGGACAAAAGCAGCACTTCAGATTCTGTTGATGAAGAAAATGTTCTCTGA  
GAAAGATCTTCATGGAAGACTTTTTATCAACCGTATTTTTCATATCAGTGCCTGACAGAATGTTTGAATTG  
CTCTTTACCAGTTCACGCTTTATGCAGAAATTTGCCAGTCTAGAAATATAATAGATGTAGTATCTACCC  
CTTGGACTGCAGAACTTGGAGGTGATCAGCTGAGAACGATGACCTACACTATAGTCCTTAATAGTCCACT  
TACTGGAAAATGCACTGCTGCCACTGAAAAGCAGACACTGTATAAAGAAAAGTCGGGAAGCAGCATTAT  
TTGGTAGATTGAGAGTACTGACACATGATGTCCCTACCATGATTACTTCTATACCGTGAACAGATACT  
GTATCATCCGATCTTCAAACAGAAATGCAGGCTAAGAGTTTCCACAGATTTGAAATACAGAAAACAGCC  
ATGGGGCCTTGCAAATCTTTAATTGAAAAGAATTCCTGGAGTCTTTGGAGGACTATTTCAAACAGCTT  
GAATCAGATTTGTTAATTGAAGAATCTGTATTAATCAGGCCATTGAAGACCCTGGAAAACCTACTGGCC  
TACGAAGGAGAAGGCGAACCTTCAACCGAACAGCAGAAACAGTTCCTAACTTTCTCTCAGCATTCTCTC  
TGGAGATGTGGGCTTAGGTGCCAAAGGGGATATTACAGGAAAGAAAAGGAAATGGAAAACCTATAACGTC  
ACTCTTATTGTGGTAATGAGTATTTTTGTGTTGTTATTAGTTTTGTTGAATGTGACACTGTTTCTGAAGC  
TGTCAAAGATAGAATGCTGCTCAGTCCTTTTACCGTCTCCGCCTCCAAGAAGAGAAAATCTTTAAATTT  
AGCCTCTGATATGGTGTCAAGAGCAGAACTATTCAGAAGAATAAAGATCAGGCCATCGTTTAAAGGGA  
GTGCTCCGAGACTCCATAGTGATGCTTGAACAGCTGAAGAGCTCACTCATTATGCTTCAGAAAACGTTTG  
ATCTACTAAATAAGAATAAGACTGGCATGGCTGTTGAAAGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



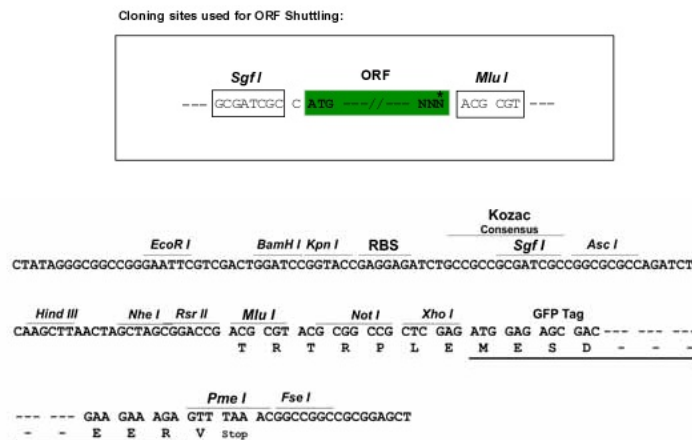
**Protein Sequence:** >RG230115 representing NM\_001172105  
Red=Cloning site Green=Tags(s)

MENLSLSIEDVQPRSPGRSSLDDSGERDEKLSKISFTSEISRVSETESFDGNSKGGLGKEESQNEKQ  
 TKKSLPTLEKKLTRVPSKSLDLNKNEYLSDKSSTSDSVDEENVPEKDLHGRLFINRIFHISADRMFEL  
 LFTSSRFMQKFASRNIDVVSTPWTAEELGGDQLRTMTYITVLNSPLTGKCTAAATEKQTLYKESREARFY  
 LVDSEVLTHDVPYHDYFYTVNRYCIIRSSKQKCLRVRVSTDLKRYRQPWGLVKSLIEKNSWSLEDYFKQL  
 ESDLLIEESVLNQAIEDPGKLTGLRRRRRTFNRTAETVPKLSSQHSSGDVGLGAKGDITGKKMEMENYNV  
 TLIVVMSIFVLLLVLLNVTFLKLSKIEHAAQSFYRLRLQEEKSLNLASDMVSRAETIQKNKDQAHRLKGL  
 VLRDSIVMLEQLKSSLIMLQKTFDLLNKNKTGMAYES

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001172105

**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:**

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\\_001172105.2](#)

**RefSeq Size:** 3497 bp

**RefSeq ORF:** 1374 bp

**Locus ID:** 54762

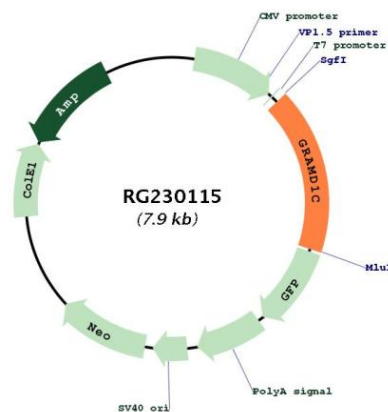
**UniProt ID:** [Q8IYS0](#)

**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 RG230115