

## Product datasheet for **RC226692**

### GRAMD1A (NM\_001136199) Human Tagged ORF Clone

#### Product data:

|                           |                        |
|---------------------------|------------------------|
| Product Type:             | Expression Plasmids    |
| Tag:                      | Myc-DDK                |
| Symbol:                   | GRAMD1A                |
| Synonyms:                 | KIAA1533               |
| Mammalian Cell Selection: | Neomycin               |
| Vector:                   | pCMV6-Entry (PS100001) |
| E. coli Selection:        | Kanamycin (25 ug/mL)   |



**ORF Nucleotide Sequence:** >RC226692 representing NM\_001136199  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**

ATGTTGACACCACACCCACTCTGGCCGGAGCACGCCAAGCAGCTCCCCATCGCTCCGAAACGGCTGC  
 AGCTCCTGCCCCAAGCCGGCCCCACCTGAGCCAGAACAGGCACCATGGTGGAGAAGGGATCAGATAG  
 CTCTCAGAGAAGGGTGGGTGCCTGGGACCCCCAGCACCCAGAGCCTAGGCAGCCGAACTTCATCCGC  
 AACAGCAAGATGCTGAGCCCCACTTATAAGCAGCGTAATGAGGACTTCCGAACTGTTACGAACTCC  
 CCGAAGCAGAAGCCTCATTGTGGATTACTCTGCGCCCTGCAGCGTGAGATCCTGCTCCAGGGCCGCT  
 CTACCTCTCTGAGAACTGGATCTGCTTCTACAGCAACATCTTCCGCTGGGAGACCACGATCTCCATCCAG  
 CTGAAGGAAGTGACATGTCTGAAGAAGGAAAAGACGGCCAAGCTGATCCCAACGCCATCCAGATCTGCA  
 CGGAGAGCGAGAAGCATTTCTCACTTCTTTGGGGCCCGTGACCGCTGCTTCTCTCATCTTCCGCT  
 CTGGCAGAATGCACTGCTTGAAGACGCTGAGTCCCGCGAGCTCTGGCACCTGGTGCATCAGTGCTAC  
 GGCTCAGAGCTGGGCCTCACCAGTGAGGATGAGGACTATGTCTCCCTTGCAGCTGAACGGTCTGGGGA  
 CCCCCAAGGAAGTGGGAGATGTGATCGCCCTGAGCGACATCACCTCCTCGGGGCGAGCTGACCGCAGCCA  
 GGAGCCAAGCCAGTGGGTCGCGCCGTGGCCATGTACGCCCAACCTTCCCGAGCCAGCAGCGACGCA  
 GACCATGGGCGAGAGGAGACAAGGAGGAGCAGGTAGACAGCCAGCCAGACGCTCCTCCAGCCAGACAG  
 TGACCCCGGTGGCTGAACCCCGAGCACAGAGCCACCCAGCCTGACGGGCCACCACTGGGCCCTT  
 GGATCTGCTGCCAGTGAGGAGCTATTGACAGACACAAGTAACCTCTTCTCATCCACTGGGGAGGAAGCG  
 GACTTGGTGCCCTGCTTCCCGACCTCTCCGGCCGCTCCTCATCAACTCTGTCTTCCATGTGGGCGCTG  
 AGCGGCTCCAGCAGATGCTCTTCTCGGACTCGCCCTTCTCCAGGGCTTCTACAGCAGTGCAAGTTAC  
 AGACGTGACGCTGAGCCCTGGAGTGGGGACAGCAAGTGCCACCAGCGCCGGGTGCTGACGTACACCATC  
 CCCATCAGCAACCCACTGGGCCCAAGAGCGCCTCCGTGGTGGAGACACAGACGCTGTTCCGGCGCGGCC  
 CCCAGGCCGGCGGGTGTGTGGTGGACTCCGAGGTGCTGACGCAGGGCATCCCCACAGGACTACTTCTA  
 CACTGCCACCGCTACTGCATCCTGGGTCTGGCCCGGAACAAGGCGGGCTCCGAGTGTCTTCTGAGATC  
 CGCTACCGAAAGCAGCCGTGGAGCCTGGTGAAGTCGCTCATTGAGAAGAACTCGTGGAGCGGCATTGAAG  
 ACTATTTCCACCATCTGGAGCGAGAGCTCGCCAAGGCTGAGAAGCTGTCTCTGGAGGAAGGCGGGAAGGA  
 TGCCCCGGGCTTGCTATCCGGCTGCGGCGGGGAAGCGGCCCTGAGCTGGCGGGCTCACGGGACGGG  
 CCCCAGCACCCAGATCTGACCCCTGTGCCGGGCGGCATTACACCTCGGGTCCCTCAGCTCCCGCT  
 TCTCCGAACCATCTGTGGACCAGGGCCCCGGGCGAGGCATCCCCAGTGCCCTGGTTCTCATCAGATTGT  
 CCTTATCATCTCATCGCCCTCAACGTCCTGCTTCTACCGCCTCTGGTCCCTGGAAGGACAGCCAC  
 ACCTTTGAGTCCTGGCACAGCCTGGCCCTGGCCAAGGGCAAGTCCCCCAGACGGCCACAGAGTGGGCCG  
 AGATCCTGGCGCTGCAGAAGCAATCCACAGCGTGGAGGTGCACAAGTGGAGGCAGATCCTGCGGGCCTC  
 CGTGGAGCTCCTGGATGAGATGAAGTTCTCGCTGGAGAAGCTGCACCAAGGCATCACAGTCTCAGACCT  
 CCCTTTGACACCCAGCCCCGGCCCGATGACAGCTTTTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC226692 representing NM\_001136199  
Red=Cloning site Green=Tags(s)

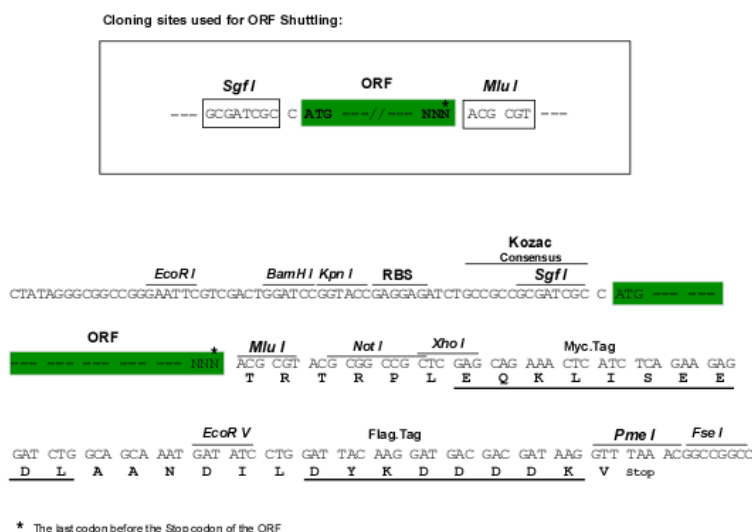
MFDTTPHSGRSTPSSPSLRLKRLQLLPPSRPPEPEPGTMVEKGSDSSEKGGVGPSTQSLGSRNFI  
NSKMLSPTYKQRNEDFRKLF SKLPEAERLIVDYSCALQREILLQGRLYLSENWICFYSNIFRWETTISIQ  
LKEVTLCKKEKTAKLIPNAIQICTESEKHFFTSFGARDRCFLLIIFRLWQNALLEKTLSPRELWHLVHQC  
Y GSELGLTSEDEDYVSPQLNGLGTPKEVGDIALSDITSSGAADRSQEPSPVGSRRGHVTPNL SRASSDA  
DHGAEDKEEQVDSQPDASSQTVTPVAEPPSTEPTQPDGPTTLGPLDLLPSEELLTDSNSSSSTGEEA  
DLAALLPDLGRLLINSVFHVGAERLQOMFLFSDSPFLQGFLQQCKFTDVTLPSPWSGDSKCHQRRVLYT  
YI PISNPLGPKSASVVETQTLFRRGPQAGGCVDSEVL TQIGIPYQDYFYTAHRYCILGLARNKARLVSSEI  
RYRKQPWSLVKSLIEKNSWSGIEDYFHHLERELAKAEKLSLEEGKDARGLLSGLRRRKRPLSWRAHGDG  
PQHDPDPCCARAGITISGSLSSRFSEPSVDQGPGAGIPSALVLSIVLIIILIALNVLLFYRLWSLERTAH  
TFESWHSALAKAGKFPQTATEWAEILALQKQFHSVEVHKWRQILRASVELLDENKFSLEKLHQGITVSDP  
PFDTOPRPDDSES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8006\\_e07.zip](https://cdn.origene.com/chromatograms/mk8006_e07.zip)

**Restriction Sites:** SgfI-MluI

### Cloning Scheme:



ACCN: NM\_001136199

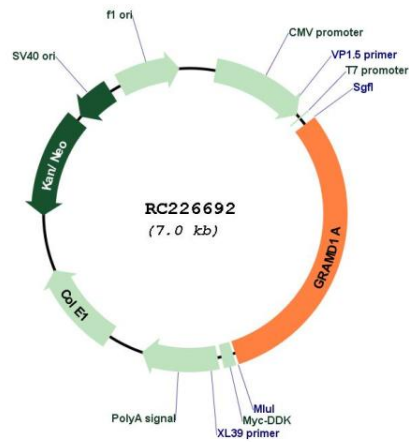
**ORF Size:** 2139 bp

**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.

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Components:</b>            | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <u>NM_001136199.3</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq ORF:</b>            | 2142 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 57655                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID:</b>            | <u>Q96CP6</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 19q13.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Protein Families:</b>      | Transmembrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>MW:</b>                    | 79.2 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Gene Summary:</b>          | <p>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). May play a role in tumor progression (By similarity).</p> <p>[UniProtKB/Swiss-Prot Function]</p> |

Product images:



Circular map for RC226692

Western validation with an anti-DDK antibody

\* L: Control HEK293 lysate R: Over-expression lysate