

Product datasheet for **RC219269**

GRAMD1B (NM_020716) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRAMD1B (NM_020716) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRAMD1B
Synonyms:	LINC01059
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC219269 representing NM_020716
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAAGGATTCAAGCTCTCCTGCACTGCCAGTAACTCCAACCGCAGCACGCCGGCTGCTCGCCCATCC
 TCCGGAAGCGGTCTCGCTCGCCAACCCCGAGAACCAGGACGGAGACACCATGGTGGAGAAGGGCTCAGA
 TCACTCCTCGGACAAGTCCCCGTCCACACCGGAGCAGGGCGTGCAGCGCAGCTGCTCCTCCAGTCCGGC
 CGGAGCGCGGCAAGAATTCCAAGAAAAGCCAGAGTTGGTATAATGTGTTAAGCCCCACCTACAAGCAGA
 GAAATGAAGACTTCAGAAAGCTCTTTAAGCAGCTTCCAGACACGGAGCGCCTCATTGTTGATTACTCATG
 TGCCTCCAAAGAGACATTCTCCTTCAGGGCCGACTCTACCTCTCTGAAAATTGGATCTGCTTCTACAGC
 AACATCTTCCGCTGGGAACTCTGCTGACAGTCCGTTTGAAGACATCTGTTCCATGACTAAAGAAAAA
 CAGCTCGCCTCATTCCCAATGCCATCCAAGTTTGCACTGATTGAGAAAAGCACTTCTTCACTTCGTTTGG
 GGCCCGGATAGGACATATATGATGATGTTCCGGCTCTGGCAGAATGCTCTCCTTGAAGCCTCTGTGT
 CCCAAGGAGCTCTGGCACTTTGTTCAACAGTGCTATGGGAACGAATTGGGCCTGACCAGTGATGACGAGG
 ACTACGTGCCCCCTGACGACGACTTCAACACAATGGGATACTGTGAAGAGATCCCTGTGGAGAGAAATGA
 AGTGAATGACAGCTCATCCAAGAGCAGCATAGAGACCAAGCCAGATGCCAGTCCACAGCTGCCCAAGAAA
 TCCATCACCAACAGCACACTAACATCCACAGGGAGCAGTGAGGCCCGCTCTCGTTTGATGGGCTGCCCC
 TGGAGGAAGAGGCGCTGGAGGGAGACGGGTCCCTGGAAAAGGAGCTCGCCATTGACAACATCATGGGGGA
 GAAGATTGAGATGATCGCTCCTGTGAATCCCTTCACTGGACTTCAATGACAATGAGGACATCCCACT
 GAGCTCAGTGACTCTTCCGACACACAGATGAAGGAGAGGTCCAGGCCTTCTATGAGGACCTGAGTGGCC
 GGCAGTACGTGAATGAAGTCTTCAACTTCAGCGTGGACAAGCTCTATGACCTCCTTTCACCAACTCGCC
 TTCCAGCGGGATTTTCATGGAGCAGCGGCTTCTCTGATATCATCTTCCATCCATGGAAGAGGAGGAG
 AATGGAACACAGAGCCGAGTGATTCTTTACACCATCACCTTACCAACCTCTGGCTCCCCAACTGCCA
 CTGTGAGGAGACACAGACCATGTACAAGGCGAGCCAGGAGAGTGAATGTTACGTGATAGATGCCGAAGT
 CCTCACCCACGAGCTGCCCTACCATGACTACTTCTACACAATCAATCGCTACACGCTCACCCGTGTGGCT
 CGGAACAAGAGCCGACTCAGGGTCTCCACAGAGCTGCGCTATCGAAAACAGCCCTGGGGTTAGTAAAA
 CGTTCATCGAGAAGAATTCTGGAGTGGGCTGGAGGACTACTCCGCCATTTAGAGAGCGAGCTGGCCAA
 AACGGAGAGCACTTATTTGGCTGAGATGCACAGACAATCTCCAAAGAGAAGGCCAGCAAGACTACAACG
 GTGCGGAGGAGGAAGCGTCCCCATGCCACCTGCGAGTCCCTCACCTGGAAGAGGTGATGAGCCCGGTCA
 CCACGCCACAGATGAGGATGTGGGCCACAGGATCAAACATGTGGCAGGTTCCACACAGACGCGGCATAT
 CCCGGAGGACACCCCAACGGTTTCCACCTGCAGAGCGTGTCCAAGCTGCTGCTGTTATCAGCTGTGTG
 ATCTGTTTCAGTCTGGTGCTGCTGGTATCCTTAACATGATGCTCTTCTACAACTCTGGATGTTGGAAT
 ACACCACGACACCTCACTGCCTGGCAGGGTCTAAGGCTCCAAGAAAGGTTACCCAGTCTCAGACAGA
 ATGGGCCAGCTCTTAGAGTCCCAACAAAAGTACCACGATACTGAGCTCCAAAAATGGAGGGAAATCATC
 AAATCCTCAGTGATGCTCCTTGACCAGATGAAGGACTCGCTCATCAACCTTCAGAACGGCATCAGGTCCC
 GCGACTACAGTCGGAAGTGAAGAAAAGGAATCGCTATCAT

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC219269 representing NM_020716
Red=Cloning site Green=Tags(s)

MKGFKLSCTASNSNRSTPACSPILRKRSRSPTPQNQDGMTVEKSGSDHSSDKSPSTPEQGVQRSCSSQSG
RSGGKNSKKSQSWYNVLSPTYKQRNEDFRKLFKQLPDTERLIVDYSCALQRDILLQGRLYLSENWICFYS
NIFRWETLLTVRLKDICSMTKEKTARLIPNAIQVCTDSEKHFFTSFGARDRTYMMMFRLWQNALLEKPLC
PKELWHFVHQCYGNELGLTSDDEDYVPPDDDFNTMGYCEEIPVEENEVNDSSSKSSIETKPDASPQLPKK
SITNSTLTSTGSSAPVVSFDGLPLEEEALEGDSLEKELAI DNIMGEKIEIAPVNSPSLDFNDNEDIPT
ELSDSSDTHDEGEVQAFYEDLSGRQYVNEVFNFVSVDKLYDLLFTNSPFQRDFMEQRRFSDIIFHPWKKEE
NGNQSRVILYITLTNPLAPKTATVRETQTMKYASQSECYVIDAEVLTHDVPYHDYFYTINRYTLTRVA
RNKSRRLRVSTELRYRKQPWGLVKTFIEKNFWSGLEDYFRHLESELAKTESTYLAEMHRQSPKEKASKTTT
VRRKRPRHAHLRVPHLEEVMSPVTTPTDQEDVGHRIKHVAGSTQTRHIPEDTPNGFHLQSVSKLLLVISCV
ICFSLVLLVILNMMFLFYKLWMLEYYTQTDLTAWQGLRLQERLPQSQTWEWAQLLESQKQYHDTTELQKWREII
KSSVMLTDOMKDSLINLONGIRSDYTSFSEEEKRNRYH

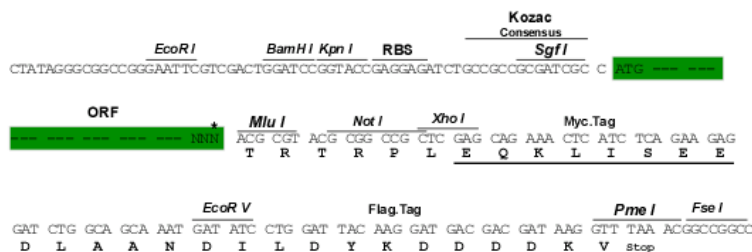
TRTRPLEOKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8120_b03.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM 020716

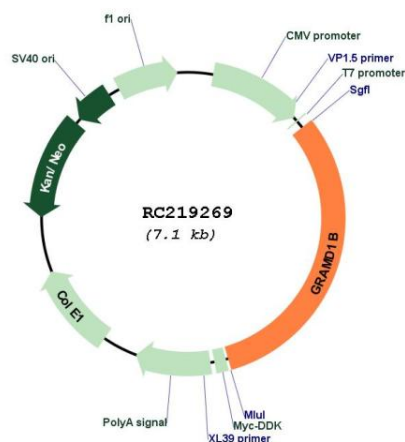
ORF Size: 2214 bp

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

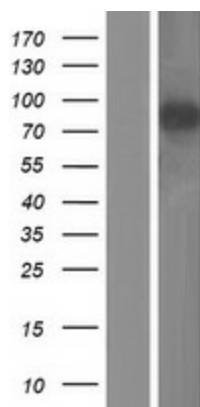
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_020716.3</u>
RefSeq Size:	7906 bp
RefSeq ORF:	2217 bp
Locus ID:	57476
UniProt ID:	<u>Q3KR37</u>
Cytogenetics:	11q24.1
Protein Families:	Transmembrane
MW:	85.8 kDa
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 in the adrenal gland 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 RC219269



Western blot validation of overexpression lysate (Cat# [LY412346]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219269 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).