

Product datasheet for **MR210355**

Gramd1b (BC070451) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd1b (BC070451) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gramd1b
Synonyms:	KIAA1201, mKIAA1201, 3222402H23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR210355 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

 TTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

 ATGGCTTCCAGCACTGCCAGTAACCTCAACCGCAGCAGCCAGCCTGCTCTCCATCCTCCGAAGCGGT
CCCGCTACCAACACCACAGAACCAGGACGGAGACACCATGGTGGAGAAGGGCTCAGATCACTCCTCGGA
CAAGTCCCCGTCCACCCCGGAGCAGGGTGTGCAACGCAGTTGCTCCTCACAGTCTGGTCGGAGCGGTGGT
AAAAATCCAAGAAAAGCCAGAGTTGGTACAATGTGCTAAGCCCCACTTACAAGCAGAGAAATGAAGACT
TCAGAAAGCTCTTTAAGCAACTTCAGACACGGAGCGCCTCATTGTTGATTACTCTTGTGCACTCCAAAG
AGACATTCTTCTCAGGGCCGACTCTACCTCTCAGAAAATTGGATCTGCTTCTACAGCAACATCTCCGC
TGGGAAACCTGTGACAGTCCGTTTGAAGATATCTGCTCCATGACTAAAGAGAAAACAGCTCGCCTCA
TTCCCAATGCCATCCAAGTCTGCACTGATTGAGAAAAGCACTTTTTTACTTCTTTGGAGCCCGGACAG
GACGTACATGATGATGTTCCGGCTCTGGCAGAATGCTCTCCTTGAAGAGCCCTATGTCCCAAGGAGCTC
TGGCACTTTGTCCACCAGTGCTACGGGAACGAGCTGGGCCTAACCAGTGATGATGAGGACTACGTGCCTC
CAGATGATGACTTCAACACAATGGGCTACTGTGAGGAGATCCCCATAGAAGAGAATGAAGTGAATGACAG
CTCATCCAAAAGTAGCATCGAGACCAAGCCGGATGCCAGCCACAGCTGCCCAAGAAGTCCATTACCAAC
AGCACACTGACGTCTACGGGAAGCAGTGAAGCCCTGTTTCGTTTGATGGCTTGCCATTGGAGGAGGAGG
TGATGGAGGGGGATGGTTCCTAGAGAAGGAGCTTGCCATTGACAACATCATAGGGGAGAAGATCGAGAT
CATGGCGCCTGTGACCTCCCTTCGCTGGACTTCAATGACAATGAGGATATCCCCACCGAGCTCAGTGAT
TCTTCAGATACCCACGATGAAGGAGAGGTCCAGGCCTTCTATGAGGACCTGAGTGAAGACAATATGTGA
ATGAGGTCTTCAACTTCAGCGTGGACAACTCTATGACCTGCTGTTACCAACTACCCCTCTCGGGGA
TTTCATGGAGCAGCGCGCTTTCTCTGATATCATCTTCCATCCATGGAAAAAGGAGGAGAATGGAACCCAG
AGTCGAGTGATTCTTACACTATCACCTCACTAATCCTCTGGCTCCCAAAACAGCCACTGTCAGGAGAG
CACAGACCATGTACAAAGCGAGTCAGGAGAGCGAATGCTACGTGATAGATGCTGAAGTCTCACCCACGA
TGTGCCGTACCATGACTACTTCTACACCATCAATCGCTACACACTACCAGAGTGGCCCGGAACAAGAGC
AGACTCAGGGTCTCCACAGAGCTCCGCTATCGAAAACAGCCCTGGGGGTTTGTAACGTTTCATCGAGA
AGAACTTCTGGAGTGGACTGGAGGACTACTTCCGTCATTTAGAGACTGAACTAACCAAAACAGAGAGTAC
CTACTTGGCTGAGATACACAGGCAGTCACCAAGGAGAAGGCTAGCAAGTCTTCAGCAGTCCGGAGGAGG
AAGCGTCCCCATGCCACCTGCGGGTGCCTCACCTGGAAGAAGTATGATCCTGTCAACACACCCACTG
ATGAAGATGTGGCCACAGGATCAAGCACGTGGCAGGTTCCACGCAGACACGGCACATCCCGGAGGACAC
TCCTGATGGTTTTACCTACAAAGTGTGTCCAAGCTGCTGCTGGTTATCAGCTGTGTGATCTGTTTCAGT
CTGGTGTCTGCTGGTTGTCTTAACATGATGCTCTTCTACAAGCTGTGGATGCTGGAATACACCACCCAGA
CCCTCACTGCCTGGCAGGGTCTCAGGCTCCAGGAAAGGTTACCCAGTCTCAGACAGAATGGGCCAGCT
ATTAGAATCCCAACAGAAGTACCACGACACCGAGCTCCAGAAAGTGGAGGGAAATCATCAATCCTCAGTG
TTGCTCCTGGACCAGATGAAGGACTCGCTTATCAATCTTCAGAATGGTATCAGGTCCCGAGACTACACAG
CTGAGAGCGACGAGAAGAGGAACCGCTATCAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210355 protein sequence
 Red=Cloning site Green=Tags(s)

MASSTASNSNRSTPACSPILRKRSRSPTPQNQDGMTVEKGS D HSSDKSPSTPEQGVQRSCSSQSGRSGG
 KNSKKSQSWYNVLSPTYKQRNEDFRKLFKQLPDERLIVDYSCALQRDILLQGRLYLSENWICFYNSIFR
 WETLLTVRLKDICSMTKEKTARLIPNAIQVCTDSEKHFFTSFGARDRTYMMFRLWQNALLEKPLCPKEL
 WHFVHCYGNELGLTSDDEDYVPPDDDFNTMGYCEEIPIEENEVNDSSSKSSIEKPDASPQLPKKSITN
 STLTSTGSSEAPVSFDGLPLEEEVMEGDGSLKELAI DNIIGEKIEIMAPVTSPSLDFNDNEDIPTELSD
 SSDTHDEGEVQAFYEDLSGRQYVNEVFNFVSDKLYDLLFTNSPFLRDFMEQRRFSDIIFHPWKKEENGNG
 SRVILYITITL TNPLAPKTATVRETQTMKASQSECYVIDAEVLTHDVPYHDYFYTINRYTLTRVARNKS
 RLRVSTELRYRKQPWGFVKTFIEKNFWSGLEDYFRHLETELTKTESTYLAEIHRQSPKEKASKSSAVRRR
 KRPHAHLRVPHLEEVMSPTTPTDEDVGHRIKHVAGSTQTRHIPEDTPDGFHLQSVSKLLLVISCVICFS
 LVLLVVLNMMFLFYKLWMLEYTTQTLTAWQGLRLQERLPQSQTAWAQLLESQKYHDELQKWREIKSSV
 LLLDQMKDSLINLQNGIRSRDYAESDEKRNRYH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: BC070451

ORF Size: 2202 bp

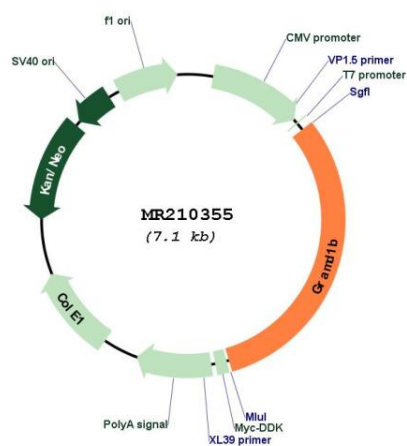
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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>BC070451</u> , <u>AAH70451</u>
RefSeq Size:	7363 bp
RefSeq ORF:	2204 bp
Locus ID:	235283
Cytogenetics:	9 A5.1
MW:	84.8 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 in the adrenal gland 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 VASt/ASTER 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 MR210355