

Product datasheet for **MG210355**

Gramd1b (BC070451) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd1b (BC070451) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gramd1b
Synonyms:	KIAA1201, mKIAA1201, 3222402H23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>MG210355 representing BC070451
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTCCAGCACTGCCAGTAACCTCAACCGCAGCAGCCAGCCTGCTCTCCATCCTCCGAAGCGGT
 CCCGCTCACCAACACCACAGAACCAGGACGGAGACACCATGGTGGAGAAGGGCTCAGATCACTCCTCGGA
 CAAGTCCCCGTCCACCCCGGAGCAGGGTGTGCAACGCAGTTGCTCCTCACAGTCTGGTCGGAGCGGTGGT
 AAAAATCCAAGAAAAGCCAGAGTTGGTACAATGTGCTAAGCCCCACTTACAAGCAGAGAAATGAAGACT
 TCAGAAAGCTCTTTAAGCAACTTCAGACACGGAGCGCCTCATTGTTGATTACTCTTGTGCACTCCAAAG
 AGACATTCTTCTCAGGGCCGACTCTACCTCTCAGAAAATTGGATCTGCTTCTACAGCAACATCTCCGC
 TGGGAAACCTGTGACAGTCCGTTTGAAGATATCTGCTCCATGACTAAAGAGAAAACAGCTCGCCTCA
 TTCCCAATGCCATCCAAGTCTGCACTGATTGAGAAAAGCACTTTTTTACTTCCTTTGGAGCCCGGACAG
 GACGTACATGATGATGTTCCGGCTCTGGCAGAATGCTCTCCTTGAAGAGCCCTATGTCCCAAGGAGCTC
 TGGCACTTTGTCCACCAGTGCTACGGGAACGAGCTGGGCCTAACCAGTGATGATGAGGACTACGTGCCTC
 CAGATGATGACTTCAACACAATGGGCTACTGTGAGGAGATCCCCATAGAAGAGAATGAAGTGAATGACAG
 CTCATCCAAAAGTAGCATCGAGACCAAGCCGGATGCCAGCCACAGCTGCCCAAGAAGTCCATTACCAAC
 AGCACACTGACGTCTACGGGAAGCAGTGAAGCCCTGTTTCGTTTGATGGCTTGCCATTGGAGGAGGAGG
 TGATGGAGGGGGATGGTTCCTAGAGAAGGAGCTTGCCATTGACAACATCATAGGGGAGAAGATCGAGAT
 CATGGCGCCTGTGACCTCCCTTCGCTGGACTTCAATGACAATGAGGATATCCCCACCGAGCTCAGTGAT
 TCTTCAGATACCCACGATGAAGGAGAGGTCCAGGCCTTCTATGAGGACCTGAGTGAAGACAATATGTGA
 ATGAGGTCTTCAACTTCAGCGTGGACAACTCTATGACCTGCTGTTACCAACTACCCCTTCTGCGGGA
 TTTCATGGAGCAGCGGCGTTTCTCTGATATCATCTTCCATCCATGGAAAAAGGAGGAGAATGGAACCCAG
 AGTCGAGTGATTCTTACACTATCACCTCACTAATCCTCTGGCTCCCAAAACAGCCACTGTGAGGAGA
 CACAGACCATGTACAAAGCGAGTCAGGAGAGCGAATGCTACGTGATAGATGCTGAAGTCTCACCCACGA
 TGTGCCGTACCATGACTACTTCTACACCATCAATCGCTACACACTACCAGAGTGGCCCGGAACAAGAGC
 AGACTCAGGGTCTCCACAGAGCTCCGCTATCGAAAACAGCCCTGGGGGTTTGTAACGTTTCATCGAGA
 AGAACTTCTGGAGTGGACTGGAGGACTACTTCCGTCATTTAGAGACTGAACTAACCAAAACAGAGAGTAC
 CTACTTGGCTGAGATACACAGGCAGTCACCAAGGAGAAGGCTAGCAAGTCTTCAGCAGTCCGGAGGAGG
 AAGCGTCCCCATGCCACCTGCGGGTGCCTCACCTGGAAGAAGTATGATCCTGTCAACACACCCACTG
 ATGAAGATGTGGCCACAGGATCAAGCACGTGGCAGGTTCCACGCAGACACGGCACATCCCGAGGACAC
 TCCTGATGGTTTTACCTACAAAGTGTGTCCAAGCTGCTGCTGGTTATCAGCTGTGTGATCTGTTTCAGT
 CTGGTGTCTGCTGGTTGTCTTAACATGATGCTCTTCTACAAGCTGTGGATGCTGGAATACACCACCCAGA
 CCCTCACTGCCTGGCAGGGTCTCAGGCTCCAGGAAAGGTTACCCAGTCTCAGACAGAATGGGCCAGCT
 ATTAGAATCCCAACAGAAGTACCACGACACCGAGCTCCAGAAAGTGGAGGGAAATCATCAATCCTCAGTG
 TTGCTCCTGGACCAGATGAAGGACTCGCTTATCAATCTTCAGAATGGTATCAGGTCCCGAGACTACACAG
 CTGAGAGCGACGAGAAGAGGAACCGCTATCAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210355 representing BC070451
 Red=Cloning site Green=Tags(s)

MASSTASNSNRSTPACSPILRKRSRSPTPQNQDGMTVEKGS D HSSDKSPSTPEQGVQRSCSSQSGRSGG
 KNSKKSQSWYNVLSPTYKQRNEDFRKLFKQLPDERLIVDYSCALQRDILLQGRLYLSENWICFYSNIFR
 WETLLTVRLKDICSMTKEKTARLIPNAIQVCTDSEKHFFTSFGARDRTYMMFRLWQNALLEKPLCPKEL
 WHFVHCYGNELGLTSDDEDYVPPDDDFNTMGYCEEIPIEENEVNDSSSKSSETKPDASPQLPKKSITN
 STLTSTGSSEAPVSFDGLPLEEEVMEGDGSLLEKLAIDNIIGEKIEIMAPVTSPLDFNDNEDIPTLSD
 SSDTHDEGEVQAFYEDLSGRQYVNEVFNFSDKLYDLLFTNSPFLRDFMEQRRFSDIIFHPWKKEENGNG
 SRVILYITITLNLAPKTATVRETQTMKASQSECYVIDAEVLTHDVPYHDYFYTINRYTLTRVARNKS
 RLRVSTELRYRKQPWGFVKTFIEKNFWSGLEDFRHLTELTKTESTYLAEIHRQSPKEKASKSSAVRRR
 KRPHALRVPHLEEVMSPTTPTDEDVGHRIKHVAGSTQTRHIPEDTPDGFHLQSVSKLLLVISCVICFS
 LVLLVVLNMLFYKLMLEYTTQTLTAWQGLRLQERLPQSQTAWAQLLESQKYHDELQKWREIKSSV
 LLLDQMKDSLINLQNGIRSRDYAESDEKRNRYH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-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: [BC070451](#), [AAH70451](#)

RefSeq Size: 7363 bp

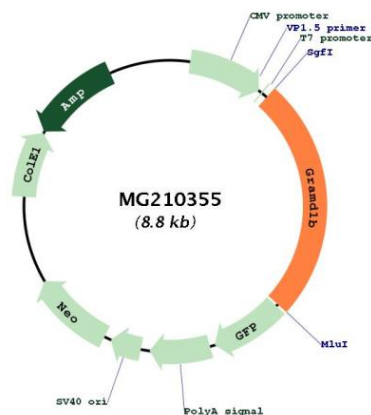
RefSeq ORF: 2204 bp

Locus ID: 235283

Cytogenetics: 9 A5.1

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 MG210355