

Product datasheet for **MC220920**

Gramd1b (BC070451) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd1b (BC070451) Mouse Untagged Clone
Tag:	Tag Free
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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Fully Sequenced ORF: >BC070451
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTCCAGCACTGCCAGTAACCTCAACCGCAGCAGCCAGCCTGCTCTCCATCCTCCGAAGCGGT
 CCCGCTCACCAACACCACAGAACCAGGACGGAGACCATGGTGGAGAAGGGCTCAGATCACTCCTCGGA
 CAAGTCCCGTCCACCCCGAGCAGGGTGTGCAACGCAGTTGCTCCTCACAGTCTGGTCGGAGCGGTGGT
 AAAAATCCAAGAAAAGCCAGAGTTGGTACAATGTGCTAAGCCCCACTTACAAGCAGAGAAATGAAGACT
 TCAGAAAGCTCTTTAAGCAACTTCAGACACGGAGCGCCTCATTGTTGATTACTCTTGTGCACTCCAAAG
 AGACATTCTTCTCAGGGCCGACTCTACCTCTCAGAAAATTGGATCTGCTTCTACAGCAACATCTCCGC
 TGGGAAACCTGTGACAGTCCGTTTGAAGATATCTGCTCCATGACTAAAGAGAAAACAGCTCGCCTCA
 TTCCCAATGCCATCCAAGTCTGCACTGATTGAGAAAAGCACTTTTTTACTTCTTTGGAGCCCGGACAG
 GACGTACATGATGATGTTCCGGCTCTGGCAGAATGCTCTCCTTGAAGAGCCCTATGTCCCAAGGAGCTC
 TGGCACTTTGTCCACCAGTGCTACGGGAACGAGCTGGGCCAACCAGTGATGATGAGGACTACGTGCCTC
 CAGATGATGACTTCAACACAATGGGCTACTGTGAGGAGATCCCCATAGAAGAGAATGAAGTGAATGACAG
 CTCATCCAAAAGTAGCATCGAGACCAAGCCGGATGCCAGCCACAGCTGCCAAGAAGTCCATTACCAAC
 AGCACACTGACGTCTACGGGAAGCAGTGAAGCCCTGTTTCGTTTGATGGCTTGCATTGGAGGAGGAGG
 TGATGGAGGGGGATGGTTCCTAGAGAAGGAGCTTGCCATTGACAACATCATAGGGGAGAAGATCGAGAT
 CATGGCGCCTGTGACCTCCCTTCGCTGGACTTCAATGACAATGAGGATATCCCCACCGAGCTCAGTGAT
 TCTTCAGATACCCACGATGAAGGAGAGGTCCAGGCCTTCTATGAGGACCTGAGTGAAGACAATATGTGA
 ATGAGGTCTTCAACTTCAGCGTGGACAACTCTATGACCTGCTGTTACCAACTACCCCTTCTCGGGGA
 TTTCATGGAGCAGCGCGCTTTCTCTGATATCATCTTCCATCCATGGAAAAGGAGGAGAATGGAACCCAG
 AGTCGAGTGATTCTTACACTATCACCTCACTAATCCTCTGGCTCCCAAAACAGCCACTGTCAGGGAGA
 CACAGACCATGTACAAAGCGAGTCAGGAGAGCGAATGCTACGTGATAGATGCTGAAGTCTCACCCACGA
 TGTGCCGTACCATGACTACTTCTACACCATCAATCGCTACACACTCACCAGAGTGGCCCGGAACAAGAGC
 AGACTCAGGGTCTCCACAGAGCTCCGCTATCGAAAACAGCCCTGGGGGTTTGTAACGTTTCATCGAGA
 AGAACTTCTGGAGTGGACTGGAGGACTACTTCCGTCATTTAGAGACTGAACAAACACAGAGAGTAC
 CTACTTGGCTGAGATACACAGGCAGTCACCAAGGAGAAGGCTAGCAAGTCTTCAGCAGTCCGGAGGAGG
 AAGCGTCCCATGCCACCTGCGGGTGCCTCACCTGGAAGAAGTATGATGCTGCTCACCACACCCACTG
 ATGAAGATGTGGCCACAGGATCAAGCAGTGGCAGGTTCCACGCAGACACGGCAGATCCCGGAGGACAC
 TCCTGATGGTTTTACCTACAAAGTGTGTCCAAGCTGCTGCTGGTTATCAGCTGTGTGATCTGTTTCAGT
 CTGGTGTGCTGGTTGTCTTAACATGATGCTCTTCTACAAGCTGTGGATGCTGGAATACACCACCCAGA
 CCCTCACTGCCTGGCAGGGTCTCAGGCTCCAGGAAAGGTTACCCAGTCTCAGACAGAATGGGCCAGCT
 ATTAGAATCCCAACAGAAGTACCACGACACCGAGCTCCAGAAGTGGAGGGAATCATCAATCCTCAGTG
 TTGCTCCTGGACCAGATGAAGGACTCGCTTATCAATCTTCAGAATGGTATCAGGTCCCGAGACTACACAG
 CTGAGAGCGACGAGAAGAGGAACCGCTATCATTGA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: BC070451

Insert Size: 2205 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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
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]