

## Product datasheet for **SC108634**

### GRAMD1C (NM\_017577) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRAMD1C (NM_017577) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRAMD1C
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_017577, the custom clone sequence may differ by one or more nucleotides

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ATGGAGGGCGCTCCGACTGTCCGTCAGGTGATGAATGAAGGGATTCAAGCCTTGCCACCGACTTACAGG
AAGATGTAGAGGAAAATCCTAGTCCAACCTGTGGAAGAGAATAATGTGGTAGTTAAAAACAGGGGCCAAA
TTTACATAATTGGAGTGGTGACTGGAGCTTTTGGATTTCAAGTCCACCTATAAAGACAGGAATGAGGAA
TACAGAAGACAGTTCACACATCTACCTGATACAGAGAGGCTGATAGCAGATTATGCTTGTGCTCTTCAGA
GGGACATTTTGTTCAGGGACGACTATACCTTTTCAAAAACTGGCTATGTTTCTATAGCAACATCTTCAG
ATGGGAAACTACAATTTCTATTGCTTTAAAGAATAAACCTTCATGACCAAGGAAAAAACTGCTCGACTC
ATCCCAAACGCTATCCAGATAGTTACAGAAAGTAAAAGTTTTTCTTACATCTTTTGGTCCAGGGATA
GAAGTTACCTCAGTATCTTTAGTTGTGGCAGAATGTATTATTAGATAAGAGCCTGACTAGACAGGAATT
CTGGCACTGCTCCAGCAGAATATGGCACTGAGCTAGGTTTAAATGCTGAGGAGATGGAAAACTGTCA
CTGTCGATTGAGGATGTGCAGCCAAGAAGTCCAGGAAGAAGCAGCTTGGATGACTCTGGGAGAGAGATG
AAAAATTATCCAAGTCAATCAGTTTTACCAGTGAATCAATTAGTCGGGTTTCAGAAACAGAGTCATTCTGA
TGGAAATTCATCAAAAGGAGGATTAGGCAAAGAGGAGTCCAAAAATGAGAAACAGACCAAAAAGAGTCTC
TTACCAACTTTGGAAAAGAAGTTAACTAGAGTGCCATCAAAGTCACTGGACTTGAATAAAAAATGAATATC
TTTCTCTGGACAAAAGCAGCACTTCAGATTCTGTTGATGAAGAAAATGTTCTTGAGAAAAGATCTTCATGG
AAGACTTTTTATCAACCGTATTTTTTATATCAGTGCTGACAGAATGTTTGAATTGCTCTTTACCAGTTCA
CGCTTTATGCAGAAAATTTGCCAGTTCTAGAAAATAAATAGATGTAGTATCTACCCCTTGGACTGCAGAAC
TTGGAGGTGATCAGCTGAGAACGATGACCTACACTATAGTCCTTAATAGTCCACTACTGGAAAAATGCAC
TGCTGCCACTGAAAAGCAGACACTGTATAAAGAAAAGTCGGGAAGCAGCATTATTTTGGTAGATTAGAA
GTTACTGACACATGATGTCCCCTACCATGATTCTTATACCGTGAACAGATACTGTATCATCCGATCTT
CAAAACAGAAAATGCAGGCTAAGAGTTTTCCACAGATTTGAAAATACAGAAAACAGCCATGGGGCCTTGTCAA
ATCTTTAATTGAAAAGAATTCCTGGAGTCTTTGGAGGACTATTTCAAACAGCTTGAATCAGATTTGTTA
ATTGAAGAATCTGTATTAATCAGGCCATTGAAGACCCTGGAAAATCTACTGGCCTACGAAGGAGAAGGC
GAACCTTCAACCGAACAGCAGAAAACAGTTCCCTAACTTTCTCTCAGCATTCTCTGGAGATGTGGGCTT
AGGTGCCAAAGGGGATATTACAGGAAAGAAAAGGAAATGGAAAATATAACGTCACCTCTATTGTGGTA
ATGAGTATTTTTGTGTTGTTATTAGTTTTGTTGAATGTGACACTGTTTCTGAAGCTGTCAAAGATAGAAC
ATGCTGCTCAGTCTTTTACCCTCTCCGCTCCAAGAAGAGAAAATCTTTAAATTTAGCCTCTGATATGGT
GTCAAGAGCAGAAAATTTAGAAAATAAAGATCAGGCCATCGTTTAAAGGGAGTGCTCCGAGACTCC
ATAGTGATGCTTGAACAGCTGAAGAGCTCACTCATTATGCTTCAGAAAACGTTTGTATCTACTAAATAAGA
ATAAAGACTGGCATGGCTGTTGAAAGCTAG
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_017577 unedited

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GGGTCACGATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACCAGNATTTCTGA
AACATGGGGAGCTTTTGCAGCAATTTTTATTCTGTATCGATGGGGCATCATCCTTGAGAT
AATAGTAAGTAATCTTGGTCCTGAAATCATTACAATTTTATATTGAATTGCTTTATGTTA
CTTCTCTATTATGCCAGGCTTCTGTTCTTGGTTTTTTTTTTTTTTTCTTTTCTGTTTGG
TTCTTCTAAGTTAAATTCCTTCTGGCGGTATAAAATAGATGTTAAGTTTATGTGCTCTGG
AGCTGGAGTGGGTTCAAATTCAGGTCAGTCACTCACTAGCCATGGAGCCTCGGCAATTA
TTTCTGTGATTCTGTTTCCCATCTGGAAATAATGATGATAATACCCTTATCTCATAGC
ATTGCAGTGAGAAATAAGATGAGTCAATACTTGTAAAGGTATGTAGCACAATGTCTAACATA
TAGTAAGCACTATGTAAGTATGGGCTATTTTATATAATTTCCAGGGCATATGAGAATA
GGTGAGCAAGATATTGCTTCTTCAATTTGTCAGTACTAGTATTTTCAACATCACTATGATTAT
CAAAATCCAGAAAAAATGTAATAATTCATTGGGCATTTGTTAGCTTTGATGAATACTTT
TCAGAAGGATTTCTTAGTTCTTTTAAATGTGTGATNGTGA AAAATAGGTTGTGATTACAGTC
ATTCTTGTCTTTGGGTAGTGAACATTAAGTCAGTTGAAACATTATTCAGGCTGATAAGC
TAAGTGCAGCAGATATTATAGCCATTGATAATTTATATTTACTGAGTGAGCATTACAGAGG
TAGAAGTTGCTAATTNCTATGTNAGANACCTATCTAAATGTGTCTATATGGCCCN TGGNC
CCTTTTGA AATATNCTTTT GAGTGACT
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_017577 unedited GGAACGCGGCACGCAATCTAGTGTGCGAGTTTTTTTTTTTTTTTTTTTAAATTTTCAATTTT ATTAATATTCAATTTACGTAACAGGCTCAAATTTATTAATTGAATTCTGCATCCATACG AATTTAGTCTTAATTTATAAAGCAACTTACTTCGATACTTCCCTTGAAGTATGTTATAA AATACAACGTTTAAATAAACATCACAAAAATATTGTTTGTGCGATCATTTTGTGACTTTA ACAGAGAAATCTCAAGTTTATAATCCACTCATTCTTGCTTACAGCCAGACACTACATAA ATCCTTACCAAAAACAAAACAAACCAGGTAGGTTCACTGTTACCCCTAGGTATGCTTCGT TGGAAATTCACCCAGAGAAACCCATTTTCCCTCTAACGGAGTCAATACTTTCATTCTCTAC AGGCATCTCAAAAATGACTATAAATGCCATGTGGCTTGGGGACTCTGGAGAAAAATG AAACATTTAATTAAGGCAATAGTTGTTCAAACAGTAAGAATGTATACACAGTTTATATA TAGATAGATAGATGGATATGTATTTTTTCCCAGAGAAAGGGCTCAAGAGACAAAACAGT AAAACACTTCAACTTCCCTAACTCTTGAAAAAATATCTGATTTTAAGTCAGTTTACAAA GTTCTTATTTAATGAGCCACTGTATGGAGACACATATGCATAAAAACTTTTTATGAAA GAGCCAAAGCTTGCATCTGAGTTAAAACCTGATAGTCAGTACACTGTACTGGGACATAC GTGCCCTGAAGTTTTATTAAGAGCTAAAATCTATGTCTGGCTTATACTTACCATCANA ACAAGTCCACACCTACCTAAGAAGGAAGCCCTACATGGNTACTGAAAATACACAATTTAT TTTCAACCAGAGTGTCACTTTCACCATGAAAGAAGCTAGTGAAGCCAATCTTAANTC AAGNATGCCTTTGATACGGCCCTAAATGCCAGATTTAAACTAAACCTTCTGTTTTT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_017577
<b>Insert Size:</b>	4110 bp
<b>OTI Disclaimer:</b>	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).
<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>RefSeq:</b>	<u><a href="#">NM_017577.1</a></u> , <u><a href="#">NP_060047.1</a></u>
<b>RefSeq Size:</b>	3770 bp
<b>RefSeq ORF:</b>	966 bp
<b>Locus ID:</b>	54762
<b>UniProt ID:</b>	<u><a href="#">Q8IYS0</a></u>
<b>Cytogenetics:</b>	3q13.31
<b>Protein Families:</b>	Transmembrane

**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 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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).