

## Product datasheet for **MC205278**

### **Gba2 (NM\_172692) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gba2 (NM_172692) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gba2
Synonyms:	F630034E04
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC056935  
 CGAGGCCACCGGGTCTGAGGACCCAGGATCCAGTGAACATGGTAACCTGCGTCCCAGCCCTCAGAGCAG  
 GTCGGCTGTGCCGAAAGAGATTCCCAAGTTTATTGTGAAGATACTGGCGGCACTGAGGCTGTGCGGGTTA  
 CAGACTGCGGGAGCCCCGAGGATAGTGGACCCAGGATGAACCAAGTACTGCAATTCAGAGGACTCTGG  
 GCAGCTGATGGCTCCTACGAGGGTAAAGCTAGGGGCTACCAGGTGCCTCCTTTTGGCTGGCGGATCTGC  
 TTGGCTCACGAGTTTGCAGAGAAGAGGAGACCTTTTCAAGCTAACACATCTCTCAGTAATTTGGTAA  
 AGCACCTCGGTATGGGCTTGAGTACTGAAGTGGTGGTACCGAAAGACCCACGTGGAAAAGAAGACCCC  
 TTTCATCGACATGCTCAATTCTCTACCCCTGAGACAGATCTATGGTTGTCCCCTGGGTGGCATTGGAGGA  
 GGCACTATCACCCGGGGCTGGAGAGGCCAGTTCTGTCGTTGGCAGCTCAACCCTGGAATGTACCAGCACC  
 AGACAGTCATTGCAGACCAATTTATAGTATGCTTGCCTGAGATGGGCGGACTGTGTACCAGCAAGTTCT  
 GTCCTTGGAGCTTCCAAATGTCTGCGCAGCTGGAAGTGGGGCCTGTGTGGTTACTTTGCTTTCTACCAC  
 GCCCTCTATCCCCGAGCCTGGACGGTCTATCAGCTTCTGGCCAGAATGTCACCCTCACCTGTGCCAGG  
 TCACACCTATCTGCCTCATGACTACCAGGACAGCAGTCTCCCTGTAGGAGTCTTTGTGTGGGATGTAGA  
 AAACGAAGGAGATGAGACTCTGGACGTTTCCATCACGTTCTCCATGCGGAATGGACTAGGAGGCGAAGAT  
 GATGCGGCCGGGAGTTTGTGGAATGAGCCCTTCCGCTGGAACAGGGCGGACGACTGTTACAGGGCTCC  
 TCTTGCATCATCAACCCCTCCGAACCCCTACACCATGGCTGTGGCTGCACGATGCACGGCAGATACCAC  
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 GGACAGCTGGACTCCCCTGCTGGCCAAAGCACCCCAACACAGAAAGGAGAGGGTATCGTGGGGCTGAT  
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 GATCATGTTTGGAGCTAAAAGCCAAGTCCACTACAGGCGGTATACACGGTTCTTTGGTTCAGATGGTGT  
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 AGAACCCAGTACTGGATGACAGAACCTTGCTGCCTGGTACAAATCTGCACTGTTCAATGAAGTACTT  
 CCTGGCCGATGGAGGCACAGTGTGGCTGGAAGTCCCGCAGACTCCCTACCAGAGGGGCTGGAGGGAGT  
 ATGCGTCACTTCTGCTACTCTGCAGGACTATGGGCGATTTGGCTATCTTGAAGGCCAGGAGTACCGCA  
 TGTACAACACATACGATGTCCACTTTTATGCGTCTTTGCCCTCGTCATGCTGTGGCCAAAAGTGTAGCT  
 CAGTCTTCAGTATGATATGGCTCTGGCAACTTTGAAGGAGGACCTGACCCGGCGACGGTACCTGATGAGT  
 GGAGTGGTGGCACCTGTGAAAAGGAGGAACGTATCCCTCATGACATTGGGGATCCGGATGATGAGCCAT  
 GGCTCCGGGTCAACGCATATTTGATTATGATACTGCTGACTGGAAGGACCTGAACCTGAAGTTTGTATT  
 GCAAAATTTATCGGGACTATTACCTGACGGGTGATCAAGGCTTCTGGAGGACATGTGGCCTGTGTGCTG  
 GCTGTGATGGAGTCCGAAATGAAGTTTGACAAGGACCAAGATGGACTCATTGAGAATGGAGGCTACGCAG  
 ACCAGACCTATGATGCATGGGTACCACAGGCCCAAGTGTACTGCGGAGGGCTGTGGCTGGCGGCAGT  
 GGCTGTAATGGTTCAGATGGCTGTTCTGTGTGGGGCCCAAGATGTCCAGGAGAGGTTTGGCTCCATTCTC  
 TGCCGAGGCCGAGAAGCTTATGAGAGACTGCTGTGGAACGGACGCTATTCAAACTACGACAGCAGCTCCC  
 ATCCTCAGTCTCGGAGCATCATGTCTGACCAGTGTGCTGGGCAGTGGTTCCTGAGGGCCTGCGGCCTGGG  
 AGAAGGAGACTGAAGTATTTCTACCCCTGCATGTGGTCCGTGCTCTCCAAACCATCTTTGAACCTAAC  
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 CCAGTGTGCAGTCTGATGAAGTCTGGGTGGGTGTGGTCTATGGGCTGGCAGCCACCATGATCCAAGAGGG  
 CCTGACTTGGGAAGGTTTCCGGACAGCTGAAGGCTGTTACCGCACTGTATGGGAACGCCTGGGCCTGGCT  
 TTCCAGACCCAGAGGCATACTGCCAGCAACAAGTGTTCGCTCCCTGGCCTACATGCGGCCACTGAGCA  
 TCTGGGCCATGCAGCTGGCCCTGCAACAGCAGCAGCATAAAAAGAGCCGAGGCCATCAGTCACACAAGG  
 CACGGGACTAAGCACACAGCCTGAATGTGGACCAAGAGATCGCTGGCAAACCTCAATTCAGAGTATCC  
 CTCTGAACTGTGGAGGCCAGCCTCCACACTGGACCTCCTCCTTCTCCACAAGTCTGACGCCCTGAG  
 CCAATAGGACAATCGCGCCCTTCTCCTTCCAGCTGTGCCAGTAAAAAGGGGCTGAGGAACCACTTATT  
 TATTTCTTACCCTACCAGTCTTCCATGGATGAAGTATTCAAGGCCAGTAAATGTCTCCAAATCTATTC  
 ACGGGGCAACAGATACATATGGGTATAAATAAAATACTCAGAAAATAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Ascl-NotI

**ACCN:** NM\_172692

**Insert Size:** 2757 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>	<a href="#">BC056935</a> , <a href="#">AAH56935</a>
<b>RefSeq Size:</b>	3075 bp
<b>RefSeq ORF:</b>	2757 bp
<b>Locus ID:</b>	230101
<b>UniProt ID:</b>	<a href="#">Q69ZF3</a>
<b>Cytogenetics:</b>	4 A5
<b>Gene Summary:</b>	Non-lysosomal glucosylceramidase that catalyzes the hydrolysis of glucosylceramide (GlcCer) to free glucose and ceramide (PubMed:17080196, PubMed:23250757). Glucosylceramides are membrane glycosphingolipids that have a wide intracellular distribution (PubMed:23250757). They are the main precursors of more complex glycosphingolipids that play a role in cellular growth, differentiation, adhesion, signaling, cytoskeletal dynamics and membrane properties (PubMed:25803043). Also involved in the transglucosylation of cholesterol, transferring glucose from glucosylceramides, thereby modifying its water solubility and biological properties (PubMed:26724485). Under specific conditions, may catalyze the reverse reaction, transferring glucose from cholesteryl-beta-D-glucoside to ceramide (PubMed:26724485). Finally, may also play a role in the metabolism of bile acids (PubMed:17080196). It is able to hydrolyze bile acid 3-O-glucosides but also to produce bile acid-glucose conjugates thanks to a bile acid glucosyl transferase activity (PubMed:17080196). However, the relevance of both activities is unclear in vivo (PubMed:17080196).[UniProtKB/Swiss-Prot Function]