

Product datasheet for **MG211175**

Gba2 (NM_172692) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gba2 (NM_172692) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gba2
Synonyms:	F630034E04
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG211175 representing NM_172692
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTAACCTGCGTCCCGCCTCAGAGCAGGTCGGCTGTGCCAAAGAGATTCCCAAGTTTATTGTGAAG
 ATACTGGCGGCACTGAGGCTGTGCGGGTTACAGACTGCGGGAGCCCCAGGATAGTGACCCAGGATGA
 ACCAAGCTACTGCAATTCAGAGGACTCTGGGCAGCTGATGGCCTCTACGAGGGTAAAGCTAGGGGCTAC
 CAGGTGCCTCCTTTGGCTGGCGGATCTGCTTGGCTCACGAGTTTGCAGAGAAGAGGAGACCTTTTCAAG
 CTAACAACATCTCTCAGTAATTTGGTAAAGCACCTCGGTATGGGCTTGAGGTACTTGAAGTGGTGGTA
 CCGAAAGACCCACGTGAAAAGAAGACCCCTTTCATCGACATGCTCAATTCTCTACCCCTGAGACAGATC
 TATGGTTGTCCCCTGGTGGCATTGGAGGAGGCACTATCACCCGGGGCTGGAGAGGCCAGTTCTGTCGTT
 GGCAGCTCAACCCTGGAATGTACCAGCACAGACAGTCATTGCAGACCAATTTATAGTATGCTTGCCTCG
 AGATGGGCGGACTGTGTACCAGCAAGTTCTGTCCTTGGAGCTTCAAATGTCCTGCGCAGCTGGAAGTGG
 GGCTGTGTGGTTACTTTGCTTTCTACCAGCCCTCTATCCCCGAGCCTGGACGGTCTATCAGTTCCTG
 GCCAGAATGTCACCCCTACCTGTGCGCCAGTCCACCTATCTTGCCTCATGACTACCAGGACAGCAGTCT
 CCCTGTAGGAGTCTTTGTGTGGGATGTAGAAAACGAAGGAGATGAGACTCTGGACGTTTCCATCACGTTT
 TCCATGCGGAATGGACTAGGAGGCGAAGATGATGCGGCCGGGAGTTTGTGGAATGAGCCCTTCCGCTGG
 AACAGGGCGGGACGACTGTTCAAGGGCTCCTCTTGATCATCAAACCCCTCCGAACCCCTACACCATGGC
 TGTGGCTGCACGATGCACGGCAGATACCACGGTAAACCCACACCACAGCCTTTGACCCCAATGGCACTGGA
 CAGCAGGTGTGGCAGGACTACTTCAGGATGGACAGCTGGACTCCCTGCTGGCCAAAGCAGCCCAACAC
 AGAAAGGAGAGGGTATCGCTGGGGCTGTATGCGTCTCTAGCAAGCTGTTACCTCGAAGCCGCTGTGCTT
 GGAGTTCTCACTGGCTTGGGATATGCCTAAGATCATGTTTGGAGCTAAAAGCCAAGTCCACTACAGGCGG
 TATACACGGTTCTTTGGTTCAGATGGTGTGTGGCGCCTGCCCTGAGCCACTATGCACTGTGCCACTATG
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 CAAATCTGCACTGTTCAATGAACTGACTTCTGGCCGATGGAGGCACAGTGTGGCTGGAAGTTCCCGCA
 GACTCCCTACCAGAGGGGCTGGGAGGGAGTATGCGTCAGCTTCTGCTACTCTGCAGGACTATGGGCGAT
 TTGGCTATCTTGAAGGCCAGGAGTACCGCATGTACAACACATACGATGTCCACTTTTATGCGTCTTTGC
 CCTCGTATGCTGTGGCCAAACTTGAGCTCAGTCTTCAATGATATGGCTCTGGCAACTTTGAAGGAG
 GACCTGACCCGGGACGCTACCTGATGAGTGGAGTGGTGGCACCTGTGAAAAGGAGGAACGTCATCCCTC
 ATGACATTGGGGATCCGGATGATGAGCCATGGCTCCGGGTCAACGCATATTTGATTATGATACTGCTGA
 CTGGAAGGACCTGAACCTGAAGTTTGTATTGCAAATTTATCGGGACTATTACCTGACGGGTGATCAAGGC
 TTCTGGAGGACATGTGGCTGTGTGTCTGGCTGTGATGGAGTCCGAAATGAAGTTTGAAGGACCAAG
 ATGGACTCATTGAGAAATGGAGGCTACGCAGACCAGACCTATGATGATGGGTACCACAGGCCCCAGTGC
 TACTGCGGAGGGCTGTGGCTGGCGGCAGTGGCTGTAATGGTTCAGATGGCTGTTCTGTGTGGGGCCAA
 GATGTCCAGGAGAGGTTTGTCCATTCTTCTGCCGAGGCCGAGAAGCTTATGAGAGACTGCTGTGGAACG
 GACGCTATTACAACACGACAGCAGCTCCATCCTCAGTCTCGGAGCATCATGTCTGACCAGTGTGCTGG
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 GGATGCACCCCTATGGTGTCCCTGATAGATCCAGTGTGCACTGATGAAGTCTGGGTGGGTGTGGTCTA
 TGGGCTGGCAGCCACCATGATCCAAGAGGGCTGACTTGGGAAGGTTTCCGGACAGCTGAAGGCTGTTAC
 CGCACTGTATGGGAACGCTGGGCTGGCTTTCCAGACCCAGAGGCATACTGCCAGCAACAAGTGTTC
 GCTCCCTGGCCTACATGCGGCCACTGAGCATCTGGGCCATGCAGCTGGCCCTGCAACAGCAGCAGCATAA
 AAAGAGCCGAGGCCATCAGTCACACAAGGCACGGGACTAAGCACACAGCCTGAATGTGGACCAAGAGA
 TCGCTGGCAAACCTCAATTCAGAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG211175 representing NM_172692
 Red=Cloning site Green=Tags(s)

MVTCVPASEQVVGCAERDSQVYCEDTGGTEAVRVTDCGSPEDSGPQDEPSYCNSEDSGQLMASYEGKARGY
 QVPPFGWRICLAHEFAEKRRPFQANNISLSNLVKHLGMGLRYLKWYRKTHTVEKKTPIFDMLNSLPLRQI
 YGCPLGGIGGGITIRGWRGQFCRWQLNPGMYQHQTVIADQFIVCLRRDGRTRYQQVLSLELPNVLRSWNW
 GLCGYFAFYHALYPRAWTVYQLPGQNVTLTCRQVTPILPHDYQDSSLPVGVFVWDVENEGDETLDVSI
 SMRNLGGEDDAAGSLWNEPFRLEQGGTTVQGLLLHHPNPPNYTMAVAARCTADTTVTHTTAFDPNGTG
 QQVWQDLLQDGGQLDSPAGQSTPTQKGEIAGAVCVSSKLLPRSRCCLEFSLAWMPKIMFGAKSQVHYRR
 YTRFFGSDGDVAPALSHYALCHYADWEDRISAWQNPVLDLDRTPAWYKSALFNELYFLADGGTVWLEVPA
 DSLPEGLGGSMRQLRSTLQDYGRFGYLEGQEYRMYNTYDVHFYASFALVMLWPKLELSLQYDMALATLKE
 DLTRRRYLMGQVAVPKRRNVIPHDIGDPDDEPWLRVNAYLIHDTADWKDLNLKFLVLIYRDYLLTGDQG
 FLEDMWPVCLAVMESEMKFDKQDGLIENGGYADQTYDAWVTTGPSAYCGGLWLAAVAVMVQMAVLCGAQ
 DVQERFASILCRGREAYERLLWNGRYNYDSSSHPOQRSIMSQCAGQWFLRACGLGEGDTEVFPTLHV
 RALQTI FELNVQAFAGGAMGAVNGMHPHGVPDRSSVQSDEVWVGVVYGLAATMIQEGLTWEGFRTAEGCY
 RTWVERLGLAFQTPEAYCQQQVFRSLAYMRPLSIWAMQLALQQQHKSRPSVQTGTGLSTQPECGPKR
 SLANLNSE

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

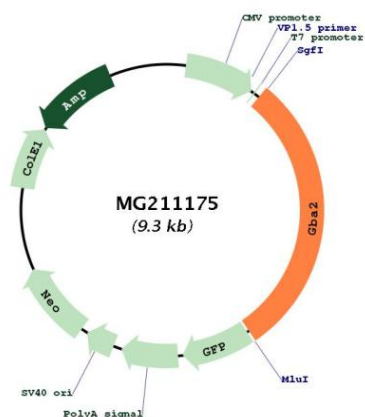
Cloning Scheme:



ACCN: NM_172692

ORF Size:	2754 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:	<ol style="list-style-type: none">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.
RefSeq:	NM_172692.3 , NP_766280.2
RefSeq Size:	3552 bp
RefSeq ORF:	2757 bp
Locus ID:	230101
UniProt ID:	Q69ZF3
Cytogenetics:	4 A5
Gene Summary:	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]

Product images:



Circular map for MG211175