

## Product datasheet for **RG212242**

### GBA (NM\_001005742) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GBA (NM_001005742) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GBA
Synonyms:	GBA1; GCB; GLUC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG212242 representing NM\_001005742  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTTTTCAAGTCCCTCCAGAGAGGAATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCA  
 GCCTCACAGGATTGCTTCTACTTACAGGCAGTGTGTGGGCATCAGGTGCCCGCCCTGCATCCCTAAAAG  
 CTTTCGGCTACAGCTCGGTGGTGTGTGTCTGCAATGCCACATACTGTGACTCCTTTGACCCCCGACCTTT  
 CCTGCCCTTGGTACCTTCAGCCGCTATGAGAGTACACGCAGTGGGCGACGGATGGAGCTGAGTATGGGGC  
 CCATCCAGGCTAATCACACGGGCACAGGCTGCTACTGACCCTGCAGCCAGAACAGAAGTCCAGAAAGT  
 GAAGGGATTTGGAGGGCCATGACAGATGCTGCTGCTCTCAACATCCTTGCCTGTCACCCCTGCCCAA  
 AATTTGCTACTTAAATCGTACTTCTCTGAAGAAGGAATCGGATATAACATCATCCGGGTACCCATGGCCA  
 GCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACACCCCTGATGATTTCCAGTTGCACAACTCAG  
 CCTCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTACCCGAGCCCTGCAGTTGGCCAGCGTCCC  
 GTTTCACCTCCTTGCCAGCCCTGGACATCACCCACTTGGCTCAAGACCAATGGAGCGGTGAATGGGAAGG  
 GGTCACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTTTGTGAAGTTCCTGGA  
 TGCCATGCTGAGCACAAGTTACAGTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGCTGGGCTGTTG  
 AGTGGATACCCCTCCAGTGCCTGGGCTTACCCCTGAACATCAGCGAGACTTCATTGCCCGTGACCTAG  
 GTCCTACCCTCGCCAACAGTACTACCACAATGTCGCCCTACTCATGCTGGATGACCAACGCTTGTCTGT  
 GCCCACTGGGCAAGGTGGTACTGACAGACCCAGAAGCAGCTAAATATGTTTATGGCATTGCTGTACAT  
 TGGTACCTGGACTTTCTGGCTCCAGCCAAAGCCACCCTAGGGGAGACACACCCGCTGTTCCCAACACCA  
 TGCTCTTTGCCTCAGAGGCTGTGTGGCTCCAAGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCATGGGA  
 TCGAGGGATGCAGTACAGCCACAGCATCATACGAACCTCCTGTACCATGTGGTTCGGCTGGACCGACTGG  
 AACCTTGCCTGAACCCGAAGGAGGACCAATTGGGTGCGTAACTTTGTCGACAGTCCCATCATTGTAG  
 ACATCACCAAGGACACGTTTTACAAACAGCCCATGTTCTACCACCTTGGCCACTTCAGCAAGTTCATTCC  
 TGAGGGCTCCCAGAGAGTGGGCTGGTTGCCAGTCAAGAAGCAGCTGGACGAGTGGCACTGATGCAT  
 CCCGATGGCTCTGCTGTTGTGGTCTGCTAAACCCTCCTTAAGGATGTGCTCTTACCATCAAGGATC  
 CTGCTGTGGGCTCCTGGAGACAATCTCACCTGGCTACTCCATTCACACCTACCTGTGGCGTCGCCAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG212242 representing NM\_001005742  
 Red=Cloning site Green=Tags(s)

MEFSSPSREECPKPLSRVSIIMAGSLTGLLLLQAVSWASGARPCIPKSFYSSVVCVFNATYCDSDPPTF  
 PALGTFSTRYESTRSGRRMELSMGPIQANHTGTGLLLTLQPEQKFKVKVGGAMTDAALNILALSPPAQ  
 NLLLKSYFSEEGIGYNIIRVPMASCDFSIRTYTYADTPDDQLHNFSLPEEDTKLKIPLIHRALQLAQRP  
 VSLLASPWTSPTWLKTNAGVNGKSLKGQPGDIYHQTWARYFVKFLDAYAEHKLQFVAVTAENEPSAGLL  
 SGYPFQCLGFTPEHQDFIARDLGPLANSTHNVRLMLDDQRLLLPHWAKVVLTDPEAAKYVHGIADVH  
 WYLDLFLAPAKATLGETHRLFPNTMLFAEACVGSKFWEQSVRLGSWDRGMQYSHSIITNLLYHVVGWTDW  
 NLALNPEGPNWVRNFVDSPIIVDITKDTFYKQPMFYHLGHFSKFIPEGSQVRVGLVASQKNDLDAVALMH  
 PDGSAVVVVLNRSSKDVPLTIKDPVGFLETISPGYSIHTYLWRRQ

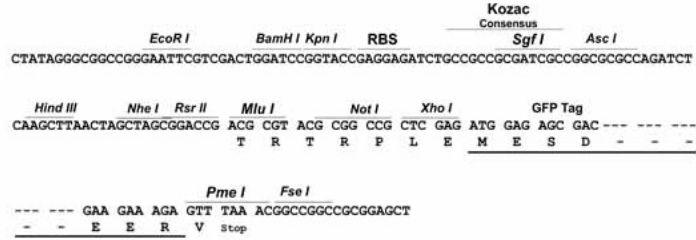
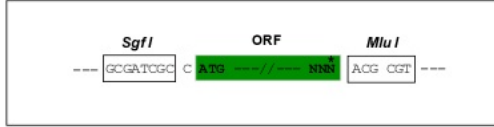
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

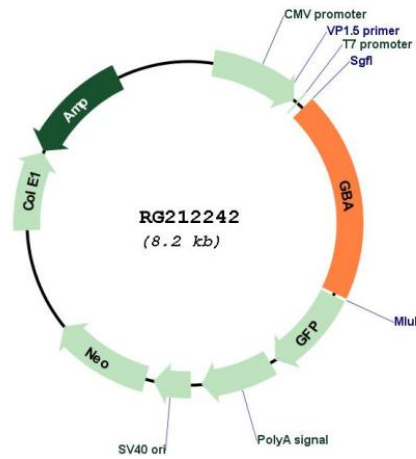
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_001005742
<b>ORF Size:</b>	1608 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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="#">NM_001005742.3</a>
<b>RefSeq Size:</b>	2413 bp
<b>RefSeq ORF:</b>	1611 bp
<b>Locus ID:</b>	2629
<b>UniProt ID:</b>	<a href="#">P04062</a>
<b>Cytogenetics:</b>	1q22
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Lysosome, Metabolic pathways, Other glycan degradation, Sphingolipid metabolism

**Gene Summary:**

This gene encodes a lysosomal membrane protein that cleaves the beta-glucosidic linkage of glycosylceramide, an intermediate in glycolipid metabolism. Mutations in this gene cause Gaucher disease, a lysosomal storage disease characterized by an accumulation of glucocerebrosides. A related pseudogene is approximately 12 kb downstream of this gene on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2010]