

## Product datasheet for **SC324249**

### GBA (NM\_001005741) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GBA (NM_001005741) Human Untagged Clone
Tag:	Tag Free
Symbol:	GBA
Synonyms:	GBA1; GCB; GLUC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_001005741.1  
 AGCTAAGGCAGGTACCTGCATCCTTGTGTTTTGTTTAGTGGATCCTCTATCCTTCAGAGAC  
 TCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGGATGGAGTTTCAAGT  
 CCTTCCAGAGAGGAATGTCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTC  
 ACAGGATTGCTTCTACTTCAGGCAGTGTCTGGGCATCAGGTGCCGCCCTGCATCCCT  
 AAAAGCTTCGGCTACAGCTCGGTGGTGTGTCTGCAATGCCACATACTGTGACTCCTTT  
 GACCCCCGACCTTTCCCTGCCCTTGGTACCTTCAGCCGCTATGAGAGTACACGCAGTGGG  
 CGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCACAGGCCTGCTA  
 CTGACCCTGCAGCCAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGCCATGACA  
 GATGCTGCTGCTCAACATCCTTGCCCTGTCACCCCTGCCAAAATTTGCTACTTAA  
 TCGTACTTCTCTGAAGAAGGAATCGGATATAACATCATCCGGGTACCCATGGCCAGCTGT  
 GACTTCTCCATCCGCACCTACACCTATGCAGACACCCCTGATGATTTCCAGTTGCACAAC  
 TTCAGCCTCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTCACCGAGCCCTGCAG  
 TTGGCCAGCGTCCCGTTTCACTCCTTGCCAGCCCTGGACATCACCCACTTGGCTCAAG  
 ACCAATGGAGCGGTGAATGGGAAGGGTCACTCAAGGGACAGCCGGAGACATCTACCAC  
 CAGACCTGGGCCAGATACTTTGTGAAGTTCCTGGATGCCTATGCTGAGCAAAAGTTACAG  
 TTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGCTGGGCTGTTGAGTGGATACCCCTTC  
 CAGTGCCTGGGCTTACCCCTGAACATCAGCGAGACTTCATTGCCCGTGACCTAGGTCTCT  
 ACCCTCGCAACAGTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTG  
 CTGCTGCCCACTGGGCAAAGGTGGTACTGACAGACCCAGAAGCAGCTAAATATGTTTCAT  
 GGCATTGCTGTACATTGGTACCTGGACTTTCTGGCTCCAGCCAAAGCCACCCTAGGGGAG  
 ACACACCGCCTGTTCCCAACACCATGCTCTTTGCCTCAGAGCCTGTGTGGGCTCCAAG  
 TTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTACAGCCACAGC  
 ATCATCACGAACCTCCTGTACCATGTGGTGGCTGGACCGACTGGAACCTTGCCTGAAC  
 CCCGAAGGAGGCCCAATTGGGTGCGTAACTTTGTCGACAGTCCCATCATTGTAGACATC  
 ACCAAGGACACGTTTTACAACAGCCCATGTTCTACCACCTTGGCCACTTCAGCAAGTTC  
 ATTCTGAGGGCTCCAGAGAGTGGGCTGGTTGCCAGTCAGAAGAACGACCTGGACGCA  
 GTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTCTGCTAAACCGCTCCTCTAAG  
 GATGTGCCTCTTACCATCAAGGATCCTGCTGTGGGCTTCTGGAGACAATCTCACCTGGC  
 TACTCCATTACACCTACCTGTGGCTGCCAGTATGGAGCAGATACTCAAGGAGGCAC  
 TGGGCTCAGCCTGGGCATTAAAGGGACAGAGTCAGCTCACACGCTGTCTGTGACTAAAGA  
 GGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACGTAAGCCAGGGGCAATGTTTGGGT  
 GACTCACTTTCCCTCTAGGTGGTGCCAGGGGCTGGAGGCCCTAGAAAAAGATCAGTAA  
 GCCCAGTGTCCCCCAGCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGTCTT  
 GGAAACTGGGCTGGGTCCAGGCCTAGGGTGGAGTCACTGTCCGTACAAACACAAGATCA  
 GGGCTGAGGGTAAGGAAAAGAAGAGACTAGGAAAGCTGGGCCAAAACCTGGAGACTGTTT  
 GTCTTTCTGGAGATGCAGAAGTGGGCCGTGGAGCAGCAGTGTGAGCATCAGGGCGGAA  
 GCCTTAAAGCAGCAGCGGGTGTGCCAGGCACCCAGATGATTCTATGGCACCAGCCAGG  
 AAAAATGGCAGCTCTTAAAGGAGAAAATGTTTGGAGCCCCAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001005741

**OTI Disclaimer:** 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 [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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.

**RefSeq:** [NM\\_001005741.1](#), [NP\\_001005741.1](#)

**RefSeq Size:** 2432 bp

**RefSeq ORF:** 1611 bp

**Locus ID:** 2629

**UniProt ID:** [P04062](#)

**Cytogenetics:** 1q22

**Protein Families:** Druggable Genome

**Protein Pathways:** 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]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Variants 1, 2 and 3 encode the same isoform 1.