

## Product datasheet for **SC319065**

### Galactosidase alpha (GLA) (NM\_000169) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Galactosidase alpha (GLA) (NM_000169) Human Untagged Clone
Tag:	Tag Free
Symbol:	Galactosidase alpha
Synonyms:	GALA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000169.2  
 GTGACAATGCAGCTGAGGAACCCAGAACTACATCTGGGCTGCCGCTTGCCTTCGCTTC  
 CTGGCCCTCGTTTCTGGGACATCCCTGGGGCTAGAGCACTGGACAATGGATTGGCAAGG  
 ACGCCTACCATGGCTGGCTGCACTGGGAGCGCTTCATGTGCAACCTTGACTGCCAGGAA  
 GAGCCAGATTCTGCATCAGTGAGAAGCTTTCATGGAGATGGCAGAGCTCATGGTCTCA  
 GAAGGCTGGAAGGATGCAGGTTATGAGTACCTCTGCATTGACTGTTGGATGGCTCCC  
 CAAAGAGATTGAGAAGGCAGACTTCAGGCAGACCCTCAGCGCTTTCCTCATGGGATTGCG  
 CAGCTAGCTAATTATGTTACAGCAAAGGACTGAAGCTAGGGATTTATGCAGATGTTGGA  
 AATAAACCTGCGCAGGCTTCCCTGGGAGTTTTGGATACTACGACATTGATGCCAGACC  
 TTTGCTGACTGGGAGTAGATCTGCTAAAATTTGATGGTTGTTACTGTGACAGTTTGAA  
 AATTTGGCAGATGGTTATAAGCACATGTCCTTGGCCCTGAATAGGACTGGCAGAAGCATT  
 GTGACTCCTGTGAGTGGCCTTTTATATGTGGCCCTTTCAAAGCCCAATTATACAGAA  
 ATCCGACAGTACTGCAATCACTGGCGAAATTTTGTGACATTGATGATTCTGGAAGT  
 ATAAAGAGTATCTGGACTGGACATCTTTTAACAGGAGAGAATTGTTGATGTTGCTGGA  
 CCAGGGGGTTGGAATGACCCAGATATGTTAGTGATTGGCAACTTTGGCCTCAGCTGGAAT  
 CAGCAAGTAACTCAGATGGCCCTCTGGGCTATCATGGCTGCTCCTTTATTCATGTCTAAT  
 GACCTCCGACACATCAGCCCTCAAGCCAAAGCTCTCCTCAGGATAAGGACGTAATTGCC  
 ATCAATCAGGACCCCTTGGGCAAGCAAGGTACCAGCTTAGACAGGGAGACAACCTTGAA  
 GTGTGGGAACGACCTCTCTCAGGCTTAGCCTGGGCTGTAGCTATGATAAACCGGCAGGAG  
 ATTGGTGGACCTCGCTTTATACCATCGCAGTTGCTTCCCTGGGTAAAGGAGTGGCTGT  
 AATCCTGCCTGCTTCATCACACAGCTCCTCCCTGTGAAAAGGAAGCTAGGGTTCTATGAA  
 TGGACTCAAGGTTAAGAAGTACATAAATCCACAGGCACTGTTTTGCTTCAGCTAGAA  
 AATACAATGCAGATGTCATTAAGACTTACTTTAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_000169



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**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\\_000169.2](#), [NP\\_000160.1](#)

**RefSeq Size:** 1418 bp

**RefSeq ORF:** 1290 bp

**Locus ID:** 2717

**UniProt ID:** [P06280](#)

**Cytogenetics:** Xq22.1

**Domains:** Melibiase

**Protein Families:** Druggable Genome

**Protein Pathways:** Galactose metabolism, Glycerolipid metabolism, Glycosphingolipid biosynthesis - globo series, Lysosome, Sphingolipid metabolism

**Gene Summary:**

This gene encodes a homodimeric glycoprotein that hydrolyses the terminal alpha-galactosyl moieties from glycolipids and glycoproteins. This enzyme predominantly hydrolyzes ceramide trihexoside, and it can catalyze the hydrolysis of melibiose into galactose and glucose. A variety of mutations in this gene affect the synthesis, processing, and stability of this enzyme, which causes Fabry disease, a rare lysosomal storage disorder that results from a failure to catabolize alpha-D-galactosyl glycolipid moieties. [provided by RefSeq, Jul 2008]