

## Product datasheet for **RG201304**

### Galactosidase alpha (GLA) (NM\_000169) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Galactosidase alpha (GLA) (NM_000169) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Galactosidase alpha
Synonyms:	GALA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201304 representing NM_000169 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGCTGAGGAACCCAGAACTACATCTGGGCTGCGCGCTTGCCTTCGCTTCTGGCCCTCGTTTCT  
GGGACATCCCTGGGGCTAGAGCACTGGACAATGGATTGGCAAGGACGCCTACCATGGGCTGGCTGCACTG  
GGAGCGCTTCATGTGCAACCTTGACTGCCAGGAAGAGCCAGATTCCTGCATCAGTGAGAAGCTTTCATG  
GAGATGGCAGAGCTCATGGTCTCAGAAGGCTGGAAGGATGCAGGTTATGAGTACCTCTGCATTGATGACT  
GTTGGATGGCTCCCAAAGAGATTCAGAAGGCAGACTTCAGGCAGACCCTCAGCGCTTTCCTCATGGGAT  
TCGCCAGCTAGCTAATTATGTTACAGCAAAGGACTGAAGCTAGGGATTTATGCAGATGTTGGAAATAAA  
ACCTGCGCAGGCTTCCCTGGGAGTTTTGGATACTACGACATTGATGCCAGACCTTTGCTGACTGGGGAG  
TAGATCTGCTAAAATTTGATGGTTGTTACTGTGACAGTTTGGAAAATTTGGCAGATGGTTATAAGCACAT  
GTCCTTGGCCCTGAATAGGACTGGCAGAAGCATTGTGTAATCCTGTGAGTGGCCTCTTTATATGTGGCC  
TTTCAAAGCCCAATTATACAGAAATCCGACAGTACTGCAATCACTGGCGAAATTTGCTGACATTGATG  
ATTCCTGGAAAAGTATAAAGAGTATCTTGGACTGGACATCTTTAACCAGGAGAGAATTGTTGATGTTGC  
TGGACCAGGGGTTGGAATGACCAGATATGTTAGTGATTGGCACTTTGGCCTCAGCTGGAATCAGCAA  
GTAACCTCAGATGGCCCTCTGGCTATCATGGCTGCTCTTTATTTCATGTCTAATGACCTCCGACACATCA  
GCCCTCAAGCCAAAGCTCCTTCAGGATAAGGACGTAATTGCCATCAATCAGGACCCCTTGGGCAAGCA  
AGGGTACCAGCTTAGACAGGGAGACAACCTTTGAAGTGTGGGAACGACCTCTCTCAGGCTTAGCCTGGGCT  
GTAGCTATGATAAACCGGCAGGAGATTGGTGGACCTCGCTCTTATACCATCGCAGTTGCTTCCCTGGGTA  
AAGGAGTGGCCTGTAATCCTGCCTGCTTCATCACACAGCTCCTCCCTGTGAAAAGGAAGCTAGGGTTCTA  
TGAATGGACTTCAAGGTTAAGAAGTACATAAATCCCACAGGCACTGTTTTGCTTCAGCTAGAAAATACA  
ATGCAGATGTCATTAAGACTTACTTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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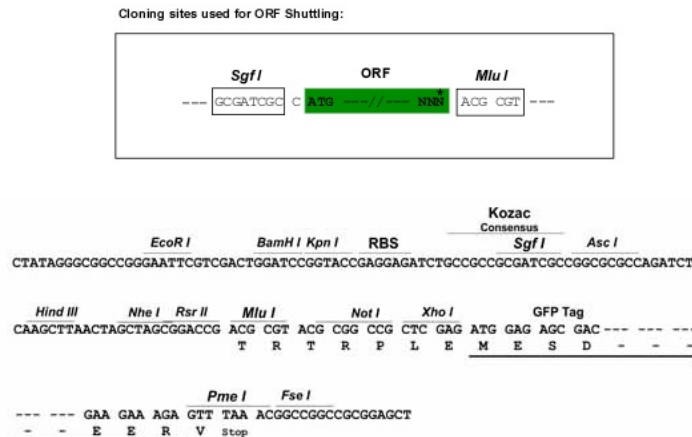
**Protein Sequence:** >RG201304 representing NM\_000169  
 Red=Cloning site Green=Tags(s)

MQLRNPELHLGCALALRFLALVSWDIPGARALDNLARTPTMGWLHWERFMCNLDQCQEEPDCISEKLFM  
 EMAELMVSEGWKDAGYEYLCIDDCWMAPQRDSEGR LQADPQRFPHGIRQLANYVHSKGLKLG IYADVGNK  
 TCAGFPGSFGYYDIDAQTFADWGVDLLKFDGCYCD SLENLADGYKHMSLALNRTGRSIVYSCWPLYMWP  
 FQKPNYTEIRQYCNHWRNFADIDDSWKS IKSILDWT SFNQERIVDVAGPGGWNDP DMLVIGNFGLSWNQ  
 VTQMALWAIMAAPLFMSNDLRHISPQAKALLQDKDVIAINQDPLGKQGYQLRQGDNF EVWERPLSGLAWA  
 VAMINRQEI GGPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWT SRLRSHINPTGTVLLQLENT  
 MQMSLKDLL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000169

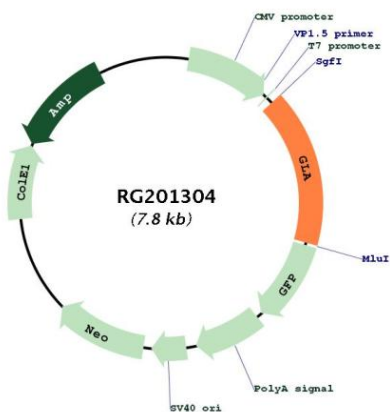
**ORF Size:** 1288 bp

**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](#)

<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_000169.2</a> , <a href="#">NP_000160.1</a>
<b>RefSeq Size:</b>	1418 bp
<b>RefSeq ORF:</b>	1290 bp
<b>Locus ID:</b>	2717
<b>UniProt ID:</b>	<a href="#">P06280</a>
<b>Cytogenetics:</b>	Xq22.1
<b>Domains:</b>	Melibiase
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Galactose metabolism, Glycerolipid metabolism, Glycosphingolipid biosynthesis - globo series, Lysosome, Sphingolipid metabolism
<b>Gene Summary:</b>	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]

Product images:



Circular map for RG201304