

Product datasheet for **RC201304**

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:	Myc-DDK
Symbol:	Galactosidase alpha
Synonyms:	GALA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC201304 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCAGCTGAGGAACCCAGAACTACATCTGGGCTGCGCGCTTGGCTTCGCTTCCTGGCCCTCGTTTCCT
 GGGACATCCCTGGGGCTAGAGCACTGGACAATGGATTGGCAAGGACGCCTACCATGGGCTGGCTGCACTG
 GGAGCGCTTCATGTGCAACCTTGACTGCCAGGAAGAGCCAGATTCTGCATCAGTGAGAAGCTTTCATG
 GAGATGGCAGAGCTCATGGTCTCAGAAGGCTGGAAGGATGCAGGTTATGAGTACCTCTGCATTGATGACT
 GTTGGATGGCTCCCCAAAGAGATTCAGAAGGCAGACTTCAGGCAGACCCTCAGCGCTTTCCTCATGGGAT
 TCGCCAGCTAGCTAATTATGTTACAGCAAAGGACTGAAGCTAGGGATTTATGCAGATGTTGAAAATAAA
 ACCTGCGCAGGCTTCCCTGGGAGTTTGGATACTACGACATTGATGCCAGACCTTGTGACTGGGGAG
 TAGATCTGCTAAAATTTGATGGTTGTTACTGTGACAGTTTGGAAAATTTGCAGATGGTTATAAGCACAT
 GTCCTTGGCCCTGAATAGGACTGGCAGAAGCATTGTGTACTCCTGTGAGTGGCCTCTTTATATGTGGCC
 TTTCAAAAGCCCAATTATACAGAAATCCGACAGTACTGCAATCACTGGCGAAATTTTGTGACTTGTG
 ATTCCTGGAAAAGTATAAAGAGTATCTTGGACTGGACATCTTTAACCAGGAGAGAATTGTTGATGTTGC
 TGGACCAGGGGTTGGAATGACCCAGATATGTTAGTGATTGGCAACTTTGGCCTCAGCTGGAATCAGCAA
 GTAACCTCAGATGGCCCTCTGGGCTATCATGGCTGCTCCTTATTCATGTCTAATGACCTCCGACACATCA
 GCCCTCAAGCCAAAGCTCTCCTCAGGATAAGGACGTAATTGCCATCAATCAGGACCCCTTGGGCAAGCA
 AGGGTACCAGCTTAGACAGGGAGACAACCTTGAAGTGTGGGAACGACCTCTCAGGCTTAGCCTGGGCT
 GTAGCTATGATAAACCGCAGGAGATTGGTGGACCTCGCTTTATACCATCGCAGTTGCTCCCTGGGTA
 AAGGAGTGGCCTGTAATCCTGCCTGCTTATCACACAGCTCCTCCCTGTGAAAAGGAAGCTAGGGTTCTA
 TGATGGACTTCAAGGTTAAGAAGTCACATAAAATCCACAGGCACTGTTTGGCTTTCAGCTAGAAAATACA
 ATGCAGATGTCATTAAGACTTACTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201304 protein sequence
 Red=Cloning site Green=Tags(s)

MQLRNPELHLGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWERFMCNLDQEEPDSCISEKLFM
 EMAELMVSEGWKDAGYEYLCIDDCWMAQRDSEGRQADPQRFPHGIRQLANYVHSGKGLKGIYADVGNK
 TCAGFPGSFGYYDIDAQTFADWGVDLLKFDGVCDSLENLADGYKHMSLALNRTGRSIVYSCWPLYMWP
 FQKPNYTEIRQYCNHWRNFADIDSWKSIKSIKLDWTSFNQERIVDVAGPGGWNDPMLVIGNFGLSWNQ
 VTQMALWAIMAAPLFMSNDRHISPQAKALLQDKDVIAINQDPLGKQGYQLRQGDNFVWERPLSGLAWA
 VAMINRQEIIGPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWT SRLRSHINPTGTVLLQLENT
 MQMSLKDLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6081_h10.zip

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 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

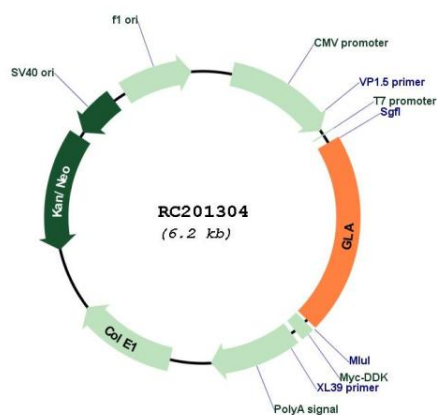
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
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.

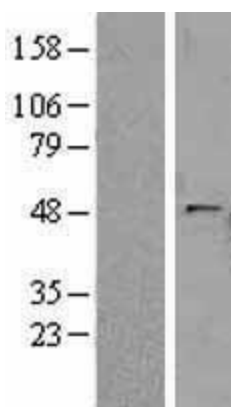
RefSeq: [NM_000169.3](#)

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
MW:	48.8 kDa
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]

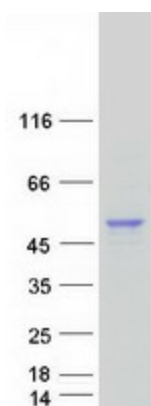
Product images:



Circular map for RC201304



Western blot validation of overexpression lysate (Cat# [LY400067]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201304 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GLA protein (Cat# [TP301304]). The protein was produced from HEK293T cells transfected with GLA cDNA clone (Cat# RC201304) using MegaTran 2.0 (Cat# [TT210002]).