

Recombinant Human GLA therapeutic protein(Agalsidase alfa)

Cat. No. GLA-P027H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human alpha-galactosidase A. The mature protein is composed of 2 subunits of 398 residues. Protein is glycosylated and produced by CHO cells.
Species	Human
Source	CHO
ProteinLength	398 Aa
Description	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. The expression product is the active ingredient of Fabrazyme and Replagal.
Molecular Mass	45.4 kDa
AA Sequence	LDNGLARTPTMGWLHWERFMCNLDQCQEEPDCISEKLFMEMAELMVSEGWKDAG YEYLCIDDCWMA PQRDS EGRLQADPQRFPHGIRQLANYVHSKGLKLG IYADVGNK TCAGFPGSFGYYDIDAQTFADWGV DLLKFDGCY CDSLENLADGYKHMSLALNRTG RSIVYSCEWPLYMWPFQKPNYTEIRQYCNHWRNFADIDDSWKSILSILDTSFNQE RIVDVAGPGGWNDPDM LVIGNFGLSWNQVVTQMALWAIMAAPLFMSNDLRHISPQ

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

AKALLQDKD VIAINQDPLGKQGYQLRQGDNFEVWERPLSGLAWAVAMINRQEIGGP
RSYTIAVASLGKGVACNPACFITQ LLPVKRKLGFYEWTSRLRSHINPTGTVLLQLENT
MQMSLKDLL

Endotoxin < 1.0 EU per µg of the protein

Purity >95%

Storage Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Alias GLA; GALA; Agalsidase alfa

GENE INFORMATION

Gene Name GLA galactosidase, alpha [Homo sapiens]

Official Symbol GLA

Synonyms GLA; galactosidase, alpha; alpha-galactosidase A; GALA; melibiase; alpha-gal A; agalsidase alfa; alpha-D-galactosidase A; alpha-D-galactoside galactohydrolase 1;

Gene ID 2717

mRNA Refseq NM_000169

Protein Refseq NP_000160

MIM 300644

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UniProt ID	P06280
Chromosome Location	Xq21.3-q22
Pathway	Galactose metabolism, organism-specific biosystem; Galactose metabolism, conserved biosystem; Glycerolipid metabolism, organism-specific biosystem; Glycerolipid metabolism, conserved biosystem; Glycosphingolipid biosynthesis - globo series, organism-specific biosystem; Glycosphingolipid biosynthesis - globo series, conserved biosystem; Glycosphingolipid metabolism, organism-specific biosystem;
Function	alpha-galactosidase activity; alpha-galactosidase activity; alpha-galactosidase activity; catalytic activity; cation binding; galactoside binding; hydrolase activity; hydrolase activity, hydrolyzing O-glycosyl compounds; protein binding; protein homodimerization activity; raffinose alpha-galactosidase activity; receptor binding;