Human Glucosylceramidase Protein, His Tag

Catalog # GLE-H52H3

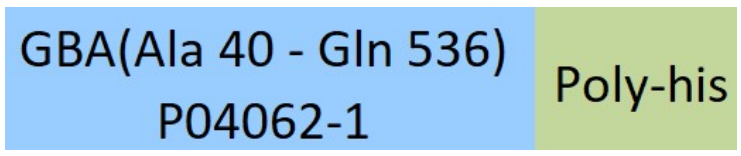
Synonym

Glucosylceramidase,GBA,Acid beta-glucosidase,Alglucerase,beta-glucocerebrosidase,D-glucosyl-N-acylsphingosine glucohydrolase,EC 3.2.1.45,GBA,GBA1,GC,GCB,GLUC,glucosidase, beta, acid,glucosidase, beta,acid (includes glucosylceramidase),Glucosylceramidase,Imiglucerase,lysosomal glucocerebrosidase

Source

Human Glucosylceramidase, His Tag(GLE-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 40 - Gln 536 (Accession # P04062-1). Predicted N-terminus: Ala 40

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 57.5 kDa. The protein migrates as 60-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in PBS with Glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

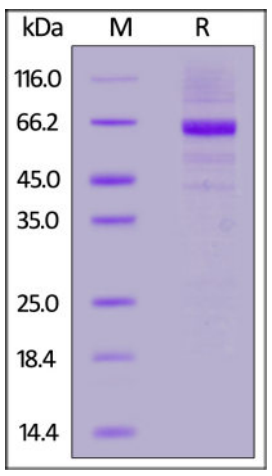
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Human Glucosylceramidase, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Background

Glucosylceramidase that catalyzes, within the lysosomal compartment, the hydrolysis of glucosylceramide/GlcCer into free ceramide and glucose. Thereby, it plays a central role in the degradation of complex lipids and the turnover of cellular membranes. Through the production of ceramides,it participates in the PKC-activated salvage pathway of ceramide formation and plays a role in cholesterol metabolism. It may either catalyze the glucosylation of cholesterol, through a

transglucosylation reaction that transfers glucose from glucosylceramide to cholesterol. Defects in Glucosylceramidase are the cause of Gaucher disease, also known as glucocerebrosidase deficiency. Gaucher disease is the most prevalent lysosomal storage disease, characterized by accumulation of glucosylceramide in the reticulo-endothelial system. Currently, enzyme replacement therapy is used to treat patients with the disease.

Clinical and Translational Updates