

GBA2 Protein, Rat, Recombinant (His)

General Information

Synonyms:	Cholesterol glucosyltransferase GBA2;Gba2;Non-lysosomal glucosylceramidase;Cholesteryl-beta-glucosidase GBA2;Bile acid beta-glucosidase GBA2;Non-lysosomal cholesterol glycosyltransferase;Bile acid glucosyl transferase GBA2;NLGase;Non-lysosomal galactosylceramidase;Glucosylceramidase 2;Non-lysosomal glycosylceramidase;Beta-glucocerebrosidase 2 (Beta-glucosidase 2)
Protein Construction:	512-877 aa
Species:	Rat
Expression Host:	E. coli
Accession:	Q5M868
Molecular Weight:	42.6 kDa (predicted)
AA Sequence:	GRFGYLEGQEYRMYNTYDVHVFYASFALVMLWPKLELSLQYDMALATFKEDLTRRRYLMSGVVAPVKRRNVIPHDIGDPDDEPWLRVNAYLIHDTADWkdlnlKFVLQVYRDYYLTGDQGFkDMWPVCLAVMESEMkFDKdQDGLIENGGYADQTYDgWVTTGpSAYCGGLWLAavAVMVQMAVLCGAQdVQDKfSSILCRGREAYERLLWNGRYYNYDSSSQpQSRsvMSDQCAGQWFLRACGLGEGDTEVFPTLHVVRALKTIFELNVQAFAGGAMGAVNGMQPHGVPDRSSVQsDEVVWGVVYGLAATMIQeGLTWEGFRtAEGCYRTVWERLGLAFQTPeAYCQQRVFRSLAYMRPLSIWAM

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months.

Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Non-lysosomal glucosylceramidase that catalyzes the hydrolysis of glucosylceramide (GlcCer) to free glucose and ceramide. Glucosylceramides are membrane glycosphingolipids that have a wide intracellular distribution. They are the main precursors of more complex glycosphingolipids that play a role in cellular growth, differentiation, adhesion, signaling, cytoskeletal dynamics and membrane properties. Also involved in the transglucosylation of cholesterol, transferring glucose from glucosylceramides, thereby modifying its water solubility and biological properties. Under specific conditions, may catalyze the reverse reaction, transferring glucose from cholesteryl-beta-D-glucoside to ceramide. Finally, may also play a role in the metabolism of bile acids. It is able to hydrolyze bile acid 3-O-glucosides but also to produce bile acid-glucose conjugates thanks to a bile acid glucosyl transferase activity. However, the relevance of both activities is unclear in vivo.

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