Data Sheet (Cat.No.TMPY-05099)

TargetMol

GBA/glucocerebrosidase Protein, Human, Recombinant (His)

General Information

Synonyms:	glucosidase, β, acid;GLUC;GCB;GBA1;glucosidase, beta, acid
Protein Construction:	A DNA sequence encoding the human GBA (NP_000148.2) (Ala40-Gln536) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Ala
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04062
Molecular Weight:	57 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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

Mutations in the GBA gene, encoding the lysosomal hydrolase glucocerebrosidase (GCase), are the most common known genetic risk factor for Parkinson's disease (PD) and dementia with Lewy bodies (DLB). ASAH1 (acid ceramidase 1) and GBA2 (glucocerebrosidase 2) enzymes that mediate glucosylsphingosine production and metabolism are attractive therapeutic targets for treating mutant GBA-associated PD.

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