Data Sheet (Cat.No.TMPY-03492)

TargetMol

B3GALTL Protein, Human, Recombinant (His)

General Information

Synonyms:	β 1,3-galactosyltransferase-like;beta 1,3-galactosyltransferase-like;B3GALTL;B3GTL
Protein Construction:	A DNA sequence encoding the human B3GALTL (JC8008) (Ser29-Phe494) was expressed with an N-terminal polyhistidine tag. Predicted N terminal: His
Species:	Human
Expression Host:	HEK293 Cells
Accession:	JC8008
Molecular Weight:	55.4 kDa (predicted); 54 kDa (reducing condition, due to glycosylation)

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

B3GALTL is a beta-1,3-glucosyltransferase that transfers glucose to O-linked fucosylglycans on thrombospondin type-1 repeats (TSRs) of several proteins. B3GALTL is a type II membrane protein. Defects in B3GALTL gene are a cause of Peters-plus syndrome (PPS). As an O-fucosyltransferase, B3GALTL transfers glucose toward fucose with a beta-1,3 linkage. It specifically glucosylates O-linked fucosylglycan on TSP type-1 domains of proteins, thereby contributing to elongation of O-fucosylglycan.

Reference

Heinonen TY. et al., 2003, Biochem Biophys Res Commun. 309 (1): 166-74.
Sato T. et al., 2006, Glycobiology. 16 (12): 1194-206.
Kozma K. et al., 2006, J Biol Chem. 281 (48): 36742-51.

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