Data Sheet (Cat.No.TMPY-02596)

TargetMol

GLT25D2 Protein, Human, Recombinant (His)

General Information

Synonyms:	GLT25D2;RP11-498P10.2;collagen β(1-O)galactosyltransferase 2;collagen beta(1-O) galactosyltransferase 2;C1orf17
Protein Construction:	A DNA sequence encoding the human GLT25D2 (Q8IYK4) (Met 1-Ser 622) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 1
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q8IYK4
Molecular Weight:	73.8 kDa (predicted); 68 kDa (reducing conditions)

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:	> 85 % 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 20 mM Tris, 500 mM NaCl, 10% gly, 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

Glycosyl transferase 25 domain 2 (GLT25D2) is a glucosyltransferase enzyme expressed only at low levels in the nervous system. Glycosyltransferases are enzymes that act as a catalyst for the transfer of a monosaccharide unit from an activated nucleotide sugar (also known as the "glycosyl donor") to a glycosyl acceptor molecule, usually an alcohol. Glycosyl transferases transfer glycosyl groups onto their substrate. Localization partially defines their

function. Glt25D2 enzyme showed a strong galactosyltransferase activity toward various types of collagen and toward the serum mannose-binding lectin MBL which contains a collagen domain.

Reference

Schegg B,et al. (2009) Core glycosylation of collagen is initiated by two beta (1-O) galactosyltransferases. Mol Cell Biol. 29 (4): 943-52.

Sricholpech M,et al. (2011) Lysyl hydroxylase 3 glucosylates galactosylhydroxylysine residues in type I collagen in osteoblast culture. J Biol Chem. 286 (11): 8846-56.

O'Connor DH,et al. (2009) Reverse engineering the mouse brain. Nature. 461 (7266): 923-9.

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