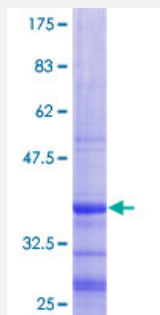


B4GALT7 (Human) Recombinant Protein (Q02)

Catalog # H00011285-Q02

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human B4GALT7 partial ORF (NP_009186.1, 51 a.a. - 140 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	LSCSGDVARAVRGQGQETSGPPRACPPEPPPEHWEEDASWGPHRLAVLVPFRERFEELLVFV PHMRRFLSRKKIRHHIYVLNQVDHFRFN
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	35.64
Interspecies Antigen Sequence	Mouse (92); Rat (92)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — B4GALT7

Entrez GeneID [11285](#)

GeneBank Accession# [NM_007255](#)

Protein Accession# [NP_009186.1](#)

Gene Name B4GALT7

Gene Alias B4GAL-T7, XGALT-1, XGALT1, XGPT1, beta4Gal-T7

Gene Description xylosylprotein beta 1,4-galactosyltransferase, polypeptide 7 (galactosyltransferase I)

Omim ID [130070 604327](#)

Gene Ontology [Hyperlink](#)

Gene Summary

This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate U DP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. The enzyme encoded by this gene attaches the first galactose in the common carbohydrate-protein (GlcA-beta1,3-Gal-beta1,3-Gal-beta1,4-Xyl-beta1-O-Ser) linkage found in proteoglycans. Manganese is required as a cofactor. This enzyme differs from the other six beta4GalTs because it lacks the conserved beta4GalT1-beta4GalT6 Cys residues and it is located in cis-Golgi instead of trans-Golgi. Two single-nucleotide mutations were identified from a patient with the progeroid type of Ehlers-Danlos syndrome. [provided by RefSeq]

Other Designations

beta-1,4-galactosyltransferase 7|galactosyltransferase 1 (xylosylprotein 4-beta-galactosyltransferase)|xylosylprotein beta 1,4-galactosyltransferase 7

Pathway

- [Chondroitin sulfate biosynthesis](#)
- [Heparan sulfate biosynthesis](#)
- [Metabolic pathways](#)