

Recombinant Human B4GALT7 protein, GST-tagged

Cat. No. B4GALT7-035H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human B4GALT7 full-length ORF (NP_009186.1, 1 a.a. - 327 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	Wheat Germ
Description	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 UDP-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 beta4GalT 1-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]

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Form	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Molecular Mass	63.8 kDa
AA Sequence	MFPSRRKAAQLPWEDGRSGLLSGGLPRKCSVFHLFVACLSLGFFSLLWLQLSCSGD VARAVRGQGQETSGPPRACPPEPPPEHWEEDASWGPHRLAVLVPFRERFEELLVF VPHMRRFLSRKKIRHHIYVLNQVDHFRFNRAALINVGFLSSNSTDYIAMHDVDLLPL NEELDYGFP EAGPFHVASPELHPLYHYKTYVGGILLLSKQHYRLCNGMSNRFWGW GREDDEFYRRIKGAGLQLFRPSGITTYKTFRHLHDPAWRKRDQKRIAAQKQE QFK VDREGGLNTVKYHVASRTALSVGGAPCTVLNIMLDCDKTATPWCTFS
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name	B4GALT7 xylosylprotein beta 1,4-galactosyltransferase, polypeptide 7 (galactosyltransferase I) [Homo sapiens]
Official Symbol	B4GALT7
Synonyms	B4GALT7; xylosylprotein beta 1,4-galactosyltransferase, polypeptide 7 (galactosyltransferase I); beta-1,4-galactosyltransferase 7; beta4Gal T7; XGALT 1; beta4Gal-T7; beta4GalT-VII; beta-1,4-GalTase 7; beta-1,4-galactosyltransferase VII; UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 7; proteoglycan UDP-galactose:beta-xylose beta1,4-galactosyltransferase I; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 7; XGPT1; XGALT1;

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Gene ID	11285
mRNA Refseq	NM_007255
Protein Refseq	NP_009186
MIM	604327
UniProt ID	Q9UBV7

