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Product datasheet for TP726595

B4GALT1 Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human B4GALT1 (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Gly44-Ser398(Tyr285Leu)
Tag:	C-6His
Buffer:	Supplied as a 0.2 um filtered solution of 20mM Tris-HCl,150mM NaCl,pH8.0.
Note:	Recombinant Human Beta-1,4-galactosyltransferase 1 is produced by our Mammalian expression system and the target gene encoding Gly44-Ser398(Tyr285Leu) is expressed with a 6His tag at the C-terminus.
Storage:	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Stability:	12 months from date of despatch
Locus ID:	2683
UniProt ID:	P15291
Synonyms:	1,4- galactosyltransferase, polypeptide 1; B4GalT1; B4GAL-T1; beta-1,4-galactosyltransferase 1; Beta-1,4-GalTase 1; beta4Gal-T1; betaGlcNAc beta; CDG2D; GT1; GTB

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Summary: Beta1,4-Galactosyltransferase-I (B4GALT1), one of seven beta1,4-galactosyltransferases, is an enzyme commonly found in the trans-Golgi complex that adds galactose to oligosaccharides. By sequence similarity, the beta 4GalTs form four groups: beta 4GalT1 and beta 4GalT2, beta 4GalT3 and beta 4GalT4, beta 4GalT5 and beta 4GalT6, and beta 4GalT7. beta 4GalT1 is unique among the seven enzymes because it can be expressed either as membrane associated form or secreted form. The secreted form is restricted to lactating mammary tissues where the enzyme forms a heterodimer with alpha -lactalbumin to catalyze the synthesis of lactose. The Golgi complex form catalyzes the production of lactose in the lactating mammary gland and could also be responsible for the synthesis of complex-type N-linked oligosaccharides in many glycoproteins as well as the carbohydrate moieties of glycolipids. The cell surface form functions as a recognition molecule during a variety of cell to cell and cell to matrix interactions, as those occurring during development and egg fertilization, by binding to specific oligosaccharide ligands on opposing cells or in the extracellular matrix. Defects in beta 4GalT1 are the cause of congenital disorder of glycosylation type 2D (CDG2D) .

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Galactose metabolism, Glycosphingolipid biosynthesis - lacto and neolacto series, Keratan sulfate biosynthesis, Metabolic pathways, N-Glycan biosynthesis