

Active Recombinant Human THRB

Cat. No. B4GALT1-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant protein from the full-length sequence of Beta-1,4-galactosyltransferase 1, expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	Beta-1,4-galactosyltransferase 1, also known as B4GALT1, GGTB2 and beta4GalT1, is a single-pass type II membrane protein. B4GALT1 is a member of the glycosyltransferase 7 family. It is ubiquitously expressed but at very low levels in fetal and adult brain. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. B4GALT1 is an enzyme that functions in the synthesis of glycoconjugates. It has two flexible loops, one short and one long. Upon binding a metal ion and UDPgalactose, the loops change from an open to a closed conformation, repositioning residues to lock the ligands in place. B4GALT1 is one of the best-studied glycosyltransferases. It plays a key role in the synthesis of selectin ligands. B4GALT1 may play an important role in the inflammation reaction. Defects in B4GALT1 are the cause of congenital disorder of glycosylation type 2D (CDG2D). CDGs are a family of severe inherited diseases caused by a defect in protein N-glycosylation.
Form	Powder

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Bio-activity	Ability to transfer galactose from UDP-galactose to N-Acetyl-alpha-D-glucosamine > 2000 UN/mg
Endotoxin	< 1.0 EU/ug
Purity	> 95 % by SDS-PAGE gel
Unit Definition	One unit is defined as the amount of enzyme required to transfer 1.0 nanomole of galactose from UDP-Gal to glucosamine per minute at pH 7.5 at 37°C.
Usage	Laboratory chemicals, Manufacture of substances
Storage	Recommended storage temperature -20 °C

GENE INFORMATION

Gene Name	B4GALT1 UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 1 [Homo sapiens]
Official Symbol	B4GALT1
Synonyms	B4GALT1; UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 1; GGTB2; beta-1,4-galactosyltransferase 1; beta4Gal T1; lactose synthase; beta-1,4-GalTase 1; glycoprotein-4-beta-galactosyltransferase 2; UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 1; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 1; GT1; GTB; CDG2D; B4GAL-T1; beta4Gal-T1; MGC50983; DKFZp686N19253;
Gene ID	2683
mRNA Refseq	NM_001497

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Protein Refseq	NP_001488
MIM	137060
UniProt ID	P15291

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