

Recombinant Human B4GALT1 (C-6His)

Catalog No. PKSH033898

Note: Centrifuge before opening to ensure complete recovery of vial contents.

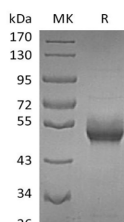
Description

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
Species	Human
Expression Host	HEK293 Cells
Sequence	Gly44-Ser398(Tyr285Leu)
Accession	P15291
Calculated Molecular Weight	40.1 kDa
Observed molecular weight	50-60 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 150mM NaCl, 2mM EDTA, 20% Glycerol, pH 8.0.
Reconstitution	Not Applicable

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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.

For Research Use Only

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) .