

Product Name: Recombinant Human B3GAT1 (N-6His)
Catalog #: PHH2324

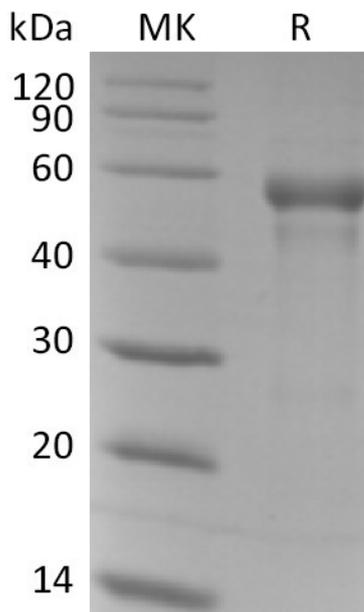


Summary

Name	B3GAT1
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Human Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 1 is produced by our Mammalian expression system and the target gene encoding His25-Ile334 is expressed with a 6His tag at the N-terminus.
Accession #	Q9P2W7
Host	Human Cells
Species	Human
Predicted Molecular Mass	36.2 KDa
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM Citrate, 8% Sucrose, 100mM NaCl, 0.05% Tween 80, pH 6.0.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SDS-PAGE image

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Alternative Names

B3GAT1; beta-1,3-glucuronyltransferase 1 (glucuronosyltransferase P); CD57; GlcAT-P; HNK1; NK1; NK-1

Background

B3GAT1 is the key enzyme during the biosynthesis of the carbohydrate epitope HNK-1, which is present on a number of cell adhesion molecules important in neurodevelopment. It adds a glucuronic residue to the terminal lactosamine residue (Gal beta 14GlcNAc) of a glycoprotein or glycolipid, which can be further sulfated to become the HNK1 epitope, a unique trisaccharide structure, HSO₃-3GlcA beta 1-3Gal beta 1-4GlcNAc. The enzyme activity was found to be enhanced in the presence of sphingomyelin and phosphatidylinositol. The HNK1 carbohydrate epitope is characteristically expressed on a series of cell adhesion molecules in addition to some glycolipids in the extracellular matrix and on the cell surface in the nervous system, where it is involved in cell-cell and cell-substratum interaction and recognition during the development of the nervous system. Like most known glycosyltransferases, B3GAT1 is a type II Golgi-resident transmembrane protein with a short N-terminal cytoplasmic domain and a single pass transmembrane domain followed by an enzymatic domain in the lumen of Golgi apparatus. The enzyme activity was assayed using a phosphatase-coupled method.

Note

For Research Use Only , Not for Diagnostic Use.