



# Recombinant Protein Technical Manual

## Recombinant Human B3GAT3 Protein (His Tag)

RPES3347

### Product Data:

**Product SKU:** RPES3347

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** O94766

### Protein Information:

**Molecular Mass:** 30.4 kDa

**AP Molecular Mass:** 31-34 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg 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, 150mM NaCl, 2mM EDTA, 20% Glycerol, pH 8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** B3GAT3; Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 3; Beta; 3-glucuronyltransferase 3; Glucuronosyltransferase I; GlcAT-I; GlcUAT-I; Gal beta; 3-Gal-R glucuronyltransferase;;

## Immunogen Information:

**Sequence:** Glu72-Val335

## Background:

Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 3 (B3GAT3) is an enzyme that in humans is encoded by the B3GAT3 gene, belongs to the glycosyltransferase 43 family. B3GAT3 is involved in a number of biological processes such as catalyzing the formation of the glycosaminoglycan-protein linkage by way of a glucuronyl transfer reaction in the final step of the biosynthesis of the linkage region of proteoglycans, forming the linkage tetrasaccharide present in heparan sulfate and chondroitin sulfate, glycosaminoglycans biosynthesis, transferring a glucuronic acid moiety from the uridine diphosphate-glucuronic acid (UDP-GlcUA) to the common linkage region trisaccharide Gal-beta,3-Gal-beta,4-Xyl covalently bound to a Ser residue at the glycosaminoglycan attachment site of proteoglycans. It also plays a role in the biosynthesis of I2/HNK carbohydrate epitope on glycoproteins, shows strict specificity for Gal-beta,3-Gal-beta,4-Xyl, exhibiting negligible incorporation into other galactoside substrates including Galbeta1-3Gal beta1-O-benzyl, Galbeta1-4GlcNAc and Galbeta1-4Glc and stimulates 2-phosphoxylose phosphatase activity of PXYLP1 in presence of uridine diphosphate-glucuronic acid (UDP-GlcUA) during completion of linkage region formation.