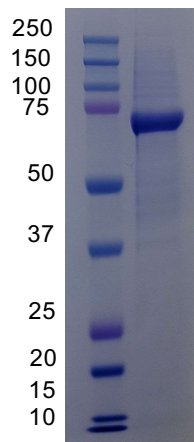


Product Name	Acetylgalactosaminyl-O-glycosyl-glycoprotein beta-1,3-N-acetylglucosaminyltransferase (B3GNT6)
Catalog Number	#0021
Alternate Names	Core 3 synthase UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 6 (BGnT-6; Beta-1,3-Gn-T6; Beta-1,3-N-acetylglucosaminyltransferase 6; Beta3Gn-T6)
Substrate Specificity	Beta-1,3-N-acetylglucosaminyltransferase that synthesizes the core 3 structure of the O-glycan, an important precursor in the biosynthesis of mucin-type glycoproteins. Plays an important role in the synthesis of mucin-type O-glycans in digestive organs.
References	pubmed.ncbi.nlm.nih.gov/7655172/
Expression Host	HEK293
Species of expressed protein	Human
Gene ID	192134
Protein RefSeq	NP_619651.3
Uniprot	Q6ZMB0
Region Expressed	aa 35-384
Expressed Protein Sequence	RSPREERSPQEETPEGPTDAPAADEPPSELVPGPPCVANASANATADFEQLPARIQDFLRY RHCRRHFLLWDAPAKCAGGRGVFLLAVKSAPEHYERRELIRRTWQERSYGGRPVRRLF LLGTPGPEDEARAERLAELVALEAREHGDVLQWAFADTFNLTLKHLHLLDWLAARCPHAR FLLSGDDDDVFVHTANVVRFLQAQPPGRHLFSGQLMEGSVPIRDSWSKYFVPPQLFPGSAYP VYCSEGGGFLSGPTARALRAAARHTPLFPIDDAYMGMCLERAGLAPSGHEGIRPFGVQLPG AQSSFDPCMYRELLLVHRFAPYEMLLMWKALHSPALSCDRGHRVS
Tag(s)	N-terminal 6xHis, GFP
Specific Activity	
Purity (%)	>95%, by SDS_PAGE under reducing conditions and visualized by Coomassie Blue stain.
Formulation	Supplied as a 0.2 µm filtered solution in 20mM HEPES and 100mM NaCl buffer, pH 7.0, with 10% Glycerol and 0.05 % NaN ₃ as preservative.
Concentration	1 µg/µl
SDS-Page Size	~72 kDa
SDS-PAGE image	



Activity	Measured by the ability to transfer the sugar from UDP-GlcNAc and generate UDP
Assay Buffer	100mM HEPES, pH 7.4, 1mg/ml BSA, 2mM MnCl ₂

Donor Substrate	UDP-GlcNAc (1mM, Promega)
Acceptor Substrate	Core 1 (Gal-b1,3GalNAc) peptide
Coupling Enzyme	UDP-Glo™ Glycosyltransferase Assay (Promega)
Detection Kit	
Assay Steps	<p>Prepare 10µl of reaction mixture containing 100mM HEPES, pH 7.4, 2mM MnCl₂,</p> <ol style="list-style-type: none"> 1) Incubate at 37°C for 60 min. 2) Put the sample on ice immediately and then transfer 5 µL of reaction mixture into 384-well 3) Incubate for 60 min at room temperature and read the plate using a GloMax Multi Detection System plate reader (Promega)
Std Curve	Follow protocol for "Generating a Standard Curve for UDP" in the UDP-Glo™ Glycosyltransferase Assay Technical Manual (Promega)
Specific Activity calc	Specific Activity (umol/min/mg)= UDP released*(umol) / [Incubation time (min) x amount of enzyme (mg)], Specific Activity was calculated using the standard curve plotted in GraphPad Prism 6 (GraphPad Software)
Shipping conditions	This product is shipped as 0.2µm filtered product on dry ice. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage cond	
6 months	6 months if stored at -80C. Avoid repeated freeze thaws.