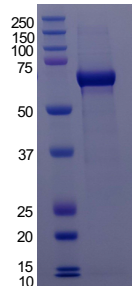


Product Name	Beta - 1,3-galactosyltransferase 5 (B3GALT5)
Catalog Number	#0027
Alternate Names	Beta-1,3-GalTase 5; Beta3Gal-T5; Beta3GalT5; b3Gal-T5, Beta-3-Gx-T5, UDP-Gal:beta-GlcNAc beta-1,3-galactosyltransferase 5, UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase 5
Substrate Specificity	Catalyzes the transfer of Gal to GlcNAc-based acceptors with a preference for the core3 O-linked glycan GlcNAc(beta1,3)GlcNAc structure. Can use glycolipid LC3Cer as an efficient acceptor.
References	Togayachi, A and Narimatsu, H. (2014) 'UDP-Gal: BetaGlcNAc Beta1,3-Galactosyltransferase, polypeptide 5 (B3GALT5)' in Handbook of Glycosyltransferases and Related Genes, 2nd Edition
Expression Host	HEK293
Species of expressed protein	Human
Gene ID	10317
Protein RefSeq	NP_006048
Uniprot	Q9Y2C3
Region Expressed	AA 32-310
Expressed Protein Sequence	KEQSFVYKKDGNFLKLPDTCRQTTPFLVLLVTSSHKQLAERMAIRQTWKGKERTVKGKQLKTFFLLGTTSSAAETKEVDQESQRHGDIIQKDFLDVYYNLTKTMMGIEWVHRFCPQAAFVMKTDSDMFINVLYLTELLKKNRTTRFFTGFLKLNEFPIRQPFKWFVSKSEYPWDRYPPFCSGTGYVFGSDVASQVYNVSKSVPIKLEDVFVGLCLERLNIRLEELHSQPTFFPGGLRFSVCLFRRIVACHFIKPRTLDDYWQALENSRGEDCPPV
Tag(s)	N-terminal 6xHis, GFP
Purity (%)	>95%, by SDS-PAGE as visualized by Coomassie Blue Staining
Formulation	Supplied as a 0.2µm filtered solution in 20mM HEPES pH 7.0 and 100mM NaCl buffer,, with 10% Glycerol and 0.05 % NaN ₃ as preservative.
Concentration	1 mg/ml
SDS-Page Size	~70 kDa
SDS-PAGE image	
Activity	Measured by the ability to transfer the sugar from UDP-Gal and generate UDP
Assay Buffer	Universal Buffer: 100mM each MES, MOPS, TRIS, pH 7.0, 1mg/ml BSA, 5mM MnCl ₂
Donor Substrate	UDP-Gal (0.2mM, Promega)
Acceptor Substate	GlcNAcβ1,3Galβ1,4Glc
Detection Kit	UDP-Glo™ Glycosyltransferase Assay kit (Promega)
Std Curve	Follow protocol for "Generating a Standard Curve for UDP" in the UDP-Glo™ Glycosyltransferase Assay Technical Manual (Promega) Note: Use Universal buffer (250mM each MES, MOPS, TRIS, pH 7.5).
Specific Activity calculation	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 conditions:	6 months if stored at -80C. Avoid repeated freeze thaws.