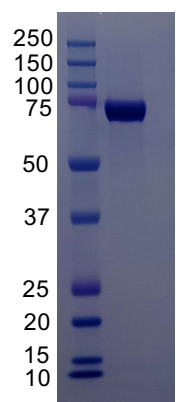


Product Name	Recombinant Human GDP-Fucose Lactosamine α 3-Fucosyltransferase (FUT6)
Catalog Number	#0012
Alternate Names	Fucosyltransferase 6, Fucosyltransferase VI (Fuc-TVI; FucT-VI), Galactoside 3-L-fucosyltransferase
Substrate Specificity	Human GDP-Fucose Lactosamine α 1,3-Fucosyltransferase (FUT6) transfers fucose from GDP-fucose to GlcNAc residues in non-sialylated or α 2,3-sialylated type 2 poly lactosamine to produce Lewis x and sialyl Lewis x structures.
References	References: [1] Kannagi, R. (2013) "Fucosyltransferase 6. GDP-Fucose Lactosamine α 3-Fucosyltransferase (FUT6)" in Handbook of Glycosyltransferases and Related Genes, 2nd edition.
Expression Host	HEK293
Species of expressed protein	Human
Gene ID	2528
Protein RefSeq	NP_000141
Uniprot	P51993
Region Expressed	AA 40-359
Expressed Protein Sequence	DPTVYPNGSRFPDSTGTPAHSIPLILLWTWPFNKPIALPRCSEMVPGTADCNITADRKVYPQ ADAVIVHHREVMYNPSAQLPRSSRRQGQRWIWFSMESPSHCWQLKAMDGYFNL TMSYR SDSDIFTYPYGWLEPWGQPAHPPLNLSAKTELVAWAVSNWGPNSARVRYQSLQAHLKV DVGGRSHKPLPQGTMMETLSRYKFYLA FKNSLHPDYITEKLWRNALEAWAVPVVLGPSRS NYERFLPPDAFIHVDDFQSPKDLARYLQELDKDHARYLSYFRWRETLRPRSFSWALAFCK ACWKLQEEESRYQTRGIAAWFT
Tag(s)	N-terminal 6xHis, GFP
Purity (%)	>95%, by SDS-PAGE as visualized by Coomassie Blue Staining
Formulation	Supplied as a 0.2 μ m filtered solution in 20mM HEPES and 100mM NaCl buffer, pH 7.0, 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 GDP-Fucose and generate GDP
Assay Buffer	Universal Buffer: 250mM each MES, MOPS, TRIS, pH 7.5
Donor Substrate	GDP-Fucose (200mM, from Carbosynth)
Acceptor Substrate	1mM LfNnT (Acceptor can be Type 2, H type2, Sialyl Type 2)
Detection Kit	GDP-Glo™ Glycosyltransferase Assay (Promega)
Assay Steps	1) Prepare 10μl of reaction mixture containing 250mM of Universal Buffer(MES, MOPS, TRIS), pH 7.5, GDP-Fuc (200mM) as donor, 1 mM of an acceptor and purified GFP-FUT6 in a microfuge tube. 2) Incubate at 37°C for 30 min. 3) Put the sample on ice immediately and then transfer 5 μLo of reaction mixture into 384-well assay plates and add equal volume of GDP Detection Reagent (5μL)

	4) 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 GDP" in the GDP-Glo™ Glycosyltransferase Assay Technical Manual (Promega) Note: Use Universal buffer (250mM each MES, MOPS, TRIS, pH 7.5).
Specific Activity calc	Specific Activity (umol/min/mg)= GDP 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.