

Product name:	β-1,4-Gal-T2 Rabbit Polyclonal Antibody
Cat number:	ABN20344
Conjugate:	Unconjugated
Size:	100μL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from the C-terminal region of human β-1,4-Gal-T2.
Reactivity:	Human, Mouse
Applications:	IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. The enzyme encoded by this gene synthesizes N-acetyllactosamine in glycolipids and glycoproteins. Its substrate specificity catalytic activity:UDP-galactose + D-glucose = UDP + lactose.,catalytic activity:UDP-galactose + N-acetyl-beta-D-glucosaminylglycopeptide = UDP + beta-D-galactosyl-(1->4)-N-acetyl-beta-D-glucosaminylglycopeptide.,catalytic activity:UDP-galactose + N-acetyl-D-glucosamine = UDP + N-acetyllactosamine.,cofactor:Manganese.,function:Responsible for the synthesis of complex-type N-linked oligosaccharides in many glycoproteins as well as the carbohydrate moieties of glycolipids. Can produce lactose.,online information:Beta-1,4-galactosyltransferase 2,online information:GlycoGene database,pathway:Protein modification; protein glycosylation.,similarity:Belongs to the glycosyltransferase 7 family.,subcellular location:Trans cisternae of Golgi stack.,tissue specificity:Weakly expressed in various tissues. Highest expression in prostate, testis, ovary, intestine, muscle, and in fetal brain.,