

Product datasheet for **RG202909**

B4GALT3 (NM_003779) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	B4GALT3 (NM_003779) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	B4GALT3
Synonyms:	beta4Gal-T3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202909 representing NM_003779 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTGCGGAGGCTGCTGGAGCGGCCTTGACGCTGGCCCTGCTTGTGGGCTCCCAGCTGGCTGTCATGA
TGTACCTGTCACTGGGGGCTCCGAAGTCTCAGTGCCCTATTTGGCCGAGATCAGGGACCGACATTTGA
CTATTCTACCCCTCGTATGTCTACAGTAACCTCAGTCACCTGCCTGGGGCCCAGGGGCTCCTCCAGCT
CCTCAAGGTCTGCCCTACTGTCCAGAACGATCTCCTCTCTTAGTGGGTCTGTGTCGGTGTCTTTAGCC
CAGTGCCATCACTGGCAGAGATTGTGGAGCGGAATCCCCGGGTAGAACCAGGGGGCCGGTACCGCCCTGC
AGGTTGTGAGCCCGCTCCCGAACAGCCATCATTGTGCCTCATCGTGGCCGGGAGACCACCTGCGCCTG
CTGCTCTACCACCTGCACCCCTTCTTGACGCGCCAGCAGCTTGCTTATGGCATCTATGTCATCCACCAGG
CTGGAAATGGAACATTTAACAGGGCAAACTGTTGAACGTTGGGGTGGCAGAGGCCCTGCGTGATGAAGA
GTGGGACTGCCTGTTCTTGACGATGTGGACCTTTGCCAGAAAATGACCACAATCTGTATGTGTGTGAC
CCCCGGGACCCCGCCATGTTGCCGTTGCTATGAACAAGTTGGATACAGCCTCCCGTACCCCACTACT
TCGGAGGAGTCTCAGCACTTACTCCTGACCAGTACCTGAAGATGAATGGCTTCCCAATGAATACTGGGG
CTGGGGTGGTGAAGATGACGACATTGCTACCAGGTGCGCCTGGCTGGGATGAAGATCTCTCGGCCCCCC
ACATCTGTAGGACACTATAAGATGGTGAAGCACCAGGAGATAAGGGCAATGAGGAAAATCCCCACAGAT
TTGACCTCTGGTCCGTACCCAGAATTCCTGGACGCAAGATGGGATGAACCTCACTGACATACCAAGTTGCT
GGCTCGAGAGCTGGGCCTCTTTATACCAACATCACAGCAGACATTGGGACTGACCTCGGGGCTCTCGG
GCTCCTTCTGGGCCACGTTACCCACCTGGTTCTCCCAAGCCTTCCGTCAAGAGATGCTGCAACGCCGGC
CCCCAGCCAGGCTGGGCCTCTACTACTGCCAACACACAGCCCTCCGAGGTTACAC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202909 representing NM_003779
 Red=Cloning site Green=Tags(s)

MLRRLLEPCTLALLVGSQAVMMYLSLGGFRSLALFGRDQGPTFDYSHPRDVYNSLHSLPGAPGGPPA
 PQGLPYCPERSPLL VGPVSVSFSVPVSLAEIVERNPRVEPGGRRYPAGCEPRRTAIIVPHRAREHHLRL
 LLYHLHPFLQRQQLAYGIYVIHQAGNGTFNRAKLLNVGVREALRDEEWDCLFLHDVDLLPENDHNLVYCD
 PRGPRHVAVAMNKFYSLPYPQYFGVVSALTPDQYLKMGFPNEYWGWGGEDDDIATRVLAMGKISRPP
 TSVGHYKMYKHRGDKNEENPHRFDLLVRTQNSWTQDGMNSLT YQLLARELGPLYTNITADIGTDRGPR
 APSGPRYPPGSSQAFRQEMLQRRPPARPGPLSTANHTALRGSH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003779

ORF Size: 1179 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_003779.4](#)

RefSeq Size: 1949 bp

RefSeq ORF: 1182 bp

Locus ID: 8703

UniProt ID: [O60512](#)

Cytogenetics: 1q23.3

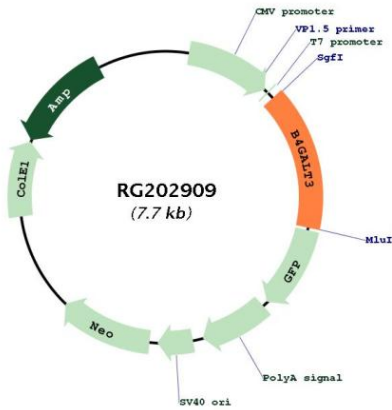
Domains: Galactosyl_T_2

Protein Families: Transmembrane

Protein Pathways: Glycosphingolipid biosynthesis - lacto and neolacto series, Keratan sulfate biosynthesis, Metabolic pathways, N-Glycan biosynthesis

Gene Summary: 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. This gene encodes an enzyme that may be mainly involved in the synthesis of the first N-acetyllactosamine unit of poly-N-acetyllactosamine chains. Multiple alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Dec 2010]

Product images:



Circular map for RG202909