

## Product datasheet for **RG233988**

### **B4GALT3 (B4GALT2) (NM\_030587) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B4GALT3 (B4GALT2) (NM_030587) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	B4GALT3
Synonyms:	B4Gal-T2; B4Gal-T3; beta4Gal-T2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG233988 representing NM_030587 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGTGGAAGTCCAGGAGCAGTGGCCTTGTGGCCAGCAGCCGGATGCCCGGGCCACTGGGCGGGC  
CAGTGGCCGCCTGCGGGATGAGCAGACTGCTGGGGGGACGCTGGAGCGCGTCTGCAAGGCTGTGCTCCT  
TCTCTGCCTGCTGCACTTCTCTGTCGGCGTCATCCTCTACTTTGACGTCTACGCCAGCACCTGGCCTTC  
TTCAGCCGCTTCACTGCCCAGAGCCCTGCCATGCCCTCCACCCAGCTGCTAGCAGCAGCAGCAGCAGCA  
GCAACTGCTCCCGGCCAACGCCACCGCTCTAGCTCCGGGCTCCCTGAGGTCCCAGTGCCTGCCCGG  
TCCCACGGCTCCCACGCTGCCACCCTGTCTGACTCGCCACCTGGTCTTGTGGGCAGACTGCTGATCGAG  
TTCACCTCACCCATGCCCTGGAGCGGGTGCAGAGGGAGAACCAGGCGTGTCTATGGGCGGCCGATACA  
CACCGCCGACTGCACCCAGCCAGACGGTGGCGGTATCATCCCTTTAGACACCGGGAAACACCCT  
GCGCTACTGGCTCCACTATCTACACCCATCTTGGAGCGGCAGCGGCTGCGCTACGGCGTCTATGTCATC  
AACCAGCATGGTGAAGACACCTTCAACCGGGCAAGCTGCTTAACGTGGGCTTCTAGAGGCGCTGAAGG  
AGGATGCCGCCTATGACTGCTTCATCTTCAGCGATGTGGACCTGGTCCCCATGGATGACCGCAACCTATA  
CCGCTGCGGCGACCAACCCCGCCACTTTGCCATTGCCATGGACAAGTTTGGCTTCCGGCTTCCCTATGCT  
GGCTACTTTGGAGGTGTGTCAGGCTGAGTAAGGCTCAGTTTCTGAGAATCAATGGCTTCCCAATGAGT  
ACTGGGGCTGGGTGGCGAGGATGATGACATCTTCAACCGGATCTCCCTGACTGGGATGAAGATCTCACG  
CCCAGACATCCGAATCGGCCGCTACCGCATGATCAAGCAGACCGCGACAAGCATAACGAACCTAACCCCT  
CAGAGGTTTACCAAGATTCAAAACAGAACTGACCATGAAGCGGGACGGCATTGGGTGAGTGGCGTACC  
AGGTCTTGGAGGTGTCTCGGCAACCACTCTTACCAATATCACAGTGGACATTGGGCGCCCTCCGTCGTG  
GCCCTCGGGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233988 representing NM\_030587  
 Red=Cloning site Green=Tags(s)

MAVEVQEWPCLPAAGCPGLGGPVAACGMSRLGGTLERVCKAVLLCLLHFLVAVILYFDVYAQHLAF  
 FSRFSARGPAHALHPAASSSSSSNSCRPNATASSSGLPEVPSALPGPTAPTLPPCPDPPGLVGRLLIE  
 FTSPMLERVQRENPGVLMGGRYTPPDCTPAQTVAVIIPFRHREHLLRYWLHYLHPILRRQRLRYGVYVI  
 NQHGEDTFNRAKLLNVGFLEALKEDAAYDCFIFSDVDLVPMDDRNLYRCGDQPRHFAIAMDKFGFRLPYA  
 GYFGVSGLSKAQFLRINGFPNEYWGWGEDDDIFNRIISLTGMKISRDIRIGRYRMIKHDRDKHNEPNP  
 QRFTKIQNTKLTMKRDGIGSVRYQVLEVSRQPLFTNITVDIGRPPSWPPRG

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_030587

**ORF Size:** 1203 bp

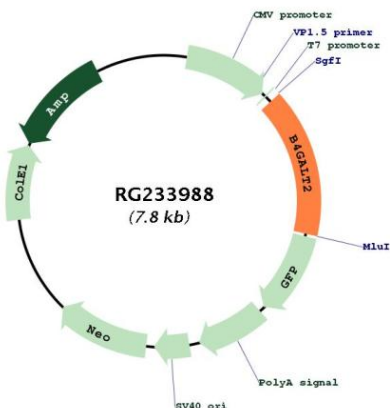
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_030587.2</a> , <a href="#">NP_085076.2</a>
<b>RefSeq Size:</b>	2010 bp
<b>RefSeq ORF:</b>	1206 bp
<b>Locus ID:</b>	8704
<b>UniProt ID:</b>	<a href="#">O60909</a>
<b>Cytogenetics:</b>	1p34.1
<b>Domains:</b>	Galactosyl_T_2
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Galactose metabolism, Glycosphingolipid biosynthesis - lacto and neolacto series, Keratan sulfate biosynthesis, Metabolic pathways, N-Glycan biosynthesis
<b>Gene Summary:</b>	<p>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 is affected by alpha-lactalbumin but it is not expressed in lactating mammary tissue. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2011]</p>

Product images:



Circular map for RG233988