

## Product datasheet for **RC233988**

### **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:** Myc-DDK  
**Symbol:** B4GALT3  
**Synonyms:** B4Gal-T2; B4Gal-T3; beta4Gal-T2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC233988 representing NM\_030587  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTGTGGAAGTCCAGGAGCAGTGGCCTTGTGGCCAGCAGCCGGATGCCCGGGCCACTGGGCGGGC  
 CAGTGGCCGCCTGCGGGATGAGCAGACTGCTGGGGGGACGCTGGAGCGCGTCTGCAAGGCTGTGCTCCT  
 TCTCTGCCTGCTGCACTTCTCGTGGCCGTCATCCTCTACTTTGACGTCTACGCCAGCACCTGGCCTTC  
 TTCAGCCGCTTCACTGCCCAGAGCCCTGCCATGCCCTCCACCCAGCTGCTAGCAGCAGCAGCAGCAGCA  
 GCAACTGCTCCCGGCCAACGCCACCGCTCTAGCTCCGGGCTCCCTGAGGTCCCAGTGCCTGCCCGG  
 TCCACCGCTCCCACGCTGCCACCTGTCTGACTCGCCACCTGGTCTTGTGGGCAGACTGCTGATCGAG  
 TTCACCTCACCCATGCCCTGGAGCGGGTGCAGAGGGAGAACCAGGCGTGTCTATGGGCGGCCGATACA  
 CACCGCCGACTGCACCCAGCCAGACGGTGGCGGTATCATCCCTTTAGACACCGGGAACACCACCT  
 GCGCTACTGGCTCCACTATCTACACCCATCTTGGGCGGCAGCGGCTGCGCTACGGCGTCTATGTCATC  
 AACCAGCATGGTGAAGACACCTTCAACCGGCCAAGCTGCTTAACGTGGGCTTCTAGAGGCGCTGAAGG  
 AGGATGCCGCCTATGACTGCTTCATCTTCAGCGATGTGGACCTGGTCCCCATGGATGACCGCAACCTATA  
 CCGCTGCGGCGACCAACCCCGCCACTTTGCCATTGCCATGGACAAGTTGGCTTCCGGCTTCCCTATGCT  
 GGCTACTTTGGAGGTGTGTCAGGCCTGAGTAAGGCTCAGTTTCTGAGAATCAATGGCTTCCCAATGAGT  
 ACTGGGGCTGGGGTGGCGAGGATGATGACATCTTCAACCGGATCTCCCTGACTGGGATGAAGATCTCACG  
 CCCAGACATCCGAATCGGCCGCTACCGCATGATCAAGCAGACCGCGACAAGCATAACGAACCTAACCCCT  
 CAGAGGTTTACCAAGATTCAAAACACGAAGCTGACCATGAAGCGGGACGGCATTGGGTGAGTGGGTACC  
 AGGTCTTGGAGGTGTCTCGGCAACCACTCTTACCAATATCACAGTGGACATTGGGCGCCCTCCGTCGTG  
 GCCCCTCGGGGC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC233988 representing NM\_030587  
 Red=Cloning site Green=Tags(s)

MAVEVQEWPCLPAAGCPGLGGPVAACGMSRLLGGTLERVCKAVLLLCLLHFLVAVILYFDVYAQHLAF  
 FSRFSARGPAHALHPAASSSSSSSSNCSRPNATASSSGLPEVPSALPGPTAPTLPPCPDSPPLVGRLLIE  
 FTSPMLERVQRENPGVLMGGRYTPDCTPAQTVAVIIPFRHREHHLRYWLHYLHPILRRQRLRYGVYVI  
 NQHGEDTFNRAKLLNVGFLEALKEDAAYDCFIFSDVDLVPMDRNLRYRCDQPRHFAIAMDKFGFRLPYA  
 GYFGGVSGLSKAQFLRINGFPNEYWGWGEDDDIFNRIISLTGMKISRDIRIGRYRMIKHDRDKHNEPNP  
 QRFTKIQNTKLTMKRDGIGSVRYQVLEVSRQPLFTNITVDIGRPPSWPPRG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_030587

**ORF Size:** 1203 bp

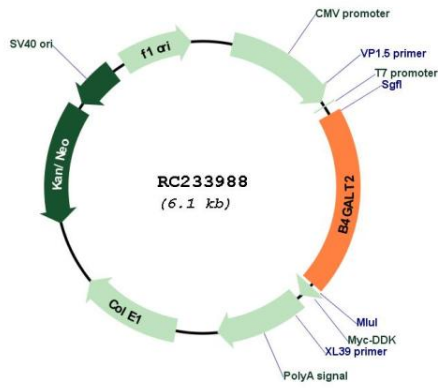
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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>	<u>NM_030587.2, NP_085076.2</u>
<b>RefSeq Size:</b>	2010 bp
<b>RefSeq ORF:</b>	1206 bp
<b>Locus ID:</b>	8704
<b>UniProt ID:</b>	<u>O60909</u>
<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>MW:</b>	45.2 kDa
<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 RC233988