

Product datasheet for **RG221047**

B4GALT4 (NM_212543) Human Tagged ORF Clone

Product data:

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|---------------------------|-----------------------------------------------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | B4GALT4 (NM_212543) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | B4GALT4 |
| Synonyms: | B4Gal-T4; beta4Gal-T4 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG221047 representing NM_212543 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTTCAACCTGACTTTCCACCTTTCTACAAATCCGATTACTGTTGCTGTTGACTTTGTGCCTGA
CAGTGGTGGGTGGCCACCACTAACTACTTCGTGGGTGCCATTCAAGAGATTCCAAAGCAAAGGAGTT
CATGGCTAATTTCCATAAGACCCTCATTTTGGGAAGGGAAAACTCTGACTAATGAAGCATCCACGAAG
AAGGTAGAAGTGGCAACTGCCCTTCTGTCTCCTTACCTCAGAGGCCAGAGCAAGCTCATTTTCAAAC
CAGATCTCACTTTGGAAGAGGTACAGGCAGAAAATCCCAAAGTGTCCAGAGGCCGGTATCGCCCTCAGGA
ATGTAAAGCTTTACAGAGGGTCGCCATCCTCGTTCCCCACCGGAACAGAGAGAAACACCTGATGTACCTG
CTGGAACATCTGCATCCCTTCTGCAGAGGCAGCAGCTGGATTATGGCATCTACGTCATCCACCAGGCTG
AAGGTAAGAAAGTTAATCGAGCCAACTCTTGAATGTGGGCTATCTAGAAGCCCTCAAGGAAGAAAATTG
GGACTGCTTTATATTCCACGATGTGGACCTGGTACCCGAGAATGACTTTAACCTTTACAAGTGTGAGGAG
CATCCCAAGCATCTGGTGGTTGGCAGGAACAGCACTGGGTACAGGTTACGTTACAGTGGATATTTGGGG
GTGTTACTGCCCTAAGCAGAGAGCAGTTTTTCAAGGTGAATGGATTCTCTAACAACACTACTGGGGATGGGG
AGGCGAAGACGATGACCTCAGACTCAGGTTGAGCTCAAAGAATGAAAATTTCCCGCCCTGCCTGAA
GTGGTAAATATAAATGGTCTTCCACACTAGAGACAAAGCAATGAGGTGAACGCAACGATGAAGC
TCTTACACCAAGTGTACGAGTCTGGAGAACAGATGGGTTGAGTAGTTGTTCTTATAAATTAGTATCTGT
GGAACACAATCCTTTATATATCAACATCACAGTGGATTTCTGTTTGGTGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG221047 representing NM_212543
Red=Cloning site Green=Tags(s)

MGFNLT FHL SYKFRLLLLL TLCLTVVGWATS NYFVGA IQEIPKAKEFMANFHKTL ILGKGTKLTNEASTK
 KVELDNCPSVSPYL RQSKL I FKPDLT LEEVQAENPKVSRGRYRPQECKALQRVA I LVPHRNREKHLMYL
 LEHLHPFLQRQQLDYGIYVIHQAE GKKFNRAKLLNVGYLEALKEENWDCFI FHDVDLVPENDFNL YKCEE
 HPKHLVGRNSTGYRLRYSGYFGVGTAL SREQF FKVNGF SNNYWG WGGEDDDLRLRVELQRMKI SRPLPE
 VGKYTMVFHTRDKGNEVNAERMKLLHQVSRVWR TDGLSSCSYKLV SVEHNPLYINI TVDFWFGA

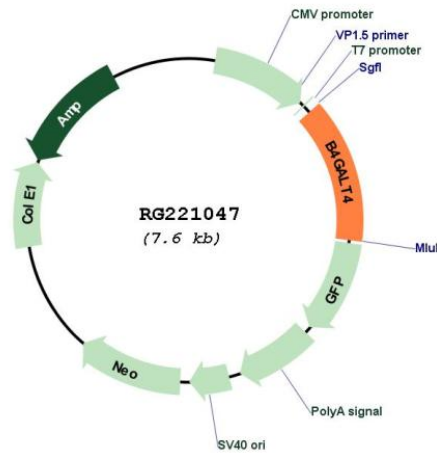
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_212543

ORF Size: 1032 bp

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| 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: | <ol style="list-style-type: none">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_212543.2 |
| RefSeq Size: | 2366 bp |
| RefSeq ORF: | 1035 bp |
| Locus ID: | 8702 |
| UniProt ID: | O60513 |
| Cytogenetics: | 3q13.32 |
| Protein Families: | Transmembrane |
| Protein Pathways: | Glycosphingolipid biosynthesis - lacto and neolacto series, Keratan sulfate biosynthesis, Metabolic pathways |
| 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. The enzyme encoded by this gene appears to mainly play a role in glycolipid biosynthesis. Two alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2008] |