

Product datasheet for **RG224595**

B3GALNT1 (NM_001038628) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: B3GALNT1 (NM_001038628) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: B3GALNT1
Synonyms: B3GALT3; beta3Gal-T3; galT3; Gb4Cer; GLCT3; GLOB; P; P1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG224595 representing NM_001038628
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCTCGGCTCTCTGGACTGTCCTTCCGAGTAGGATGTCACTGAGATCCCTCAAATGGAGCCTCCTGC
 TGCTGTCACCTCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCCCTACAATGTGATAGAACGCGT
 GAACTGGATGACTTCTATGAGTATGAGCCGATTTACAGACAAGACTTTCCTTCACTTCGAGAGCAT
 TCAAACGCTCTCATCAAATCCATTTCTGGTCATTCTGGTGACCTCCCACCTTCAGATGTGAAAGCCA
 GGCAGGCCATTAGAGTACTTGGGGTAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACATTTTCTT
 ATTAGGCCAAGAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCTTAGAGGATGAACACCTTCTTTAT
 GGTGACATAATCCGACAAGATTTTTAGACACATAATAAACCTGACCTTGAAAACCATTTATGGCATTCA
 GGTGGGTAAGTGAAGTATCTTTAAACCTAAACCACTCAGAGAAGTTTTTACAGGTTATCCTCTAATT
 TGGCAATTTAGTGAAGTATCTTTAAACCTAAACCACTCAGAGAAGTTTTTACAGGTTATCCTCTAATT
 GATAATTATCTATAGAGGATTTACCAAAAACCCATTTTCTTACCAGGAGTATCCTTTCAAGGTGT
 TCCCTCCATACTGCAGTGGGTTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGAT
 GGGTCACGTAACCCATCAAGTTTGAAGATGTTTATGTCGGGATCTGTTTGAATTTATTTAAAGTGAAC
 ATTCATATCCAGAAGACACAAAATCTTTCTTTCTATATAGAATCCATTTGGATGCTGTCAACTGAGAC
 GTGTGATTGCAGCCATGGCTTTTCTTCCAAGGAGATCATCACTTTTTGGCAGGTCATGCTAAGGAACAC
 CACATGCCATTAT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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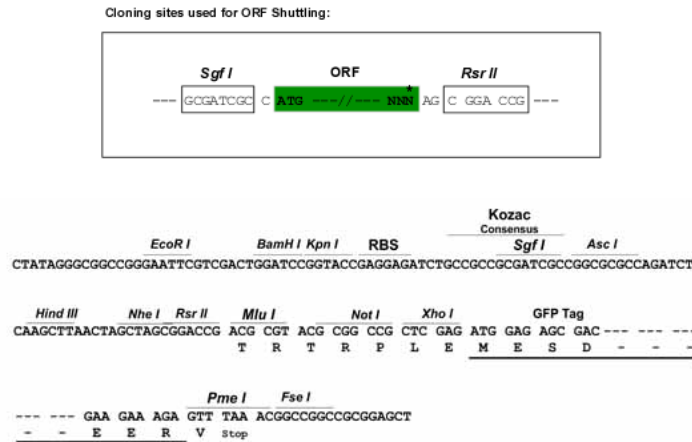
Protein Sequence: >RG224595 representing NM_001038628
 Red=Cloning site Green=Tags(s)

MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWMYFYEYEPYRQDFHFTLREH
 SNCSHQNPFLVILVTSHPSDVKARQAIRVTWGEKKSWWGYEVLTFLLGQEAEKEDKMLALSLEDEHLLY
 GDIIHQDFLDYNNLTLKTIMAFRWVTEFCPNAKYVMKTDVDFINTGNLVKYLNLNHSEKFFTGYPLI
 DNYSYRGFYQKTHISYQEYPFKVFPPYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLKLVN
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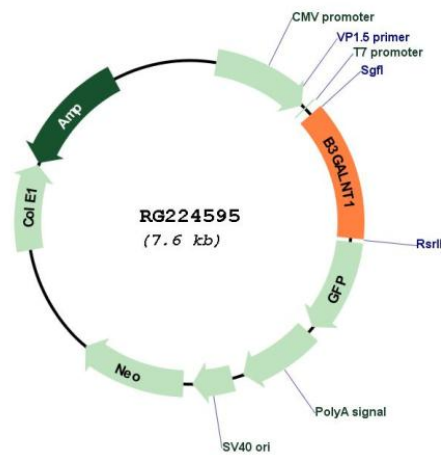
SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_001038628

ORF Size: 993 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:	<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_001038628.1 , NP_001033717.1
RefSeq Size:	3642 bp
RefSeq ORF:	996 bp
Locus ID:	8706
UniProt ID:	O75752
Cytogenetics:	3q26.1
Protein Families:	Transmembrane
Protein Pathways:	Glycosphingolipid biosynthesis - globo series, Metabolic pathways
Gene Summary:	This gene is a member of the beta-1,3-galactosyltransferase (beta3GalT) gene family. This family encodes type II membrane-bound glycoproteins with diverse enzymatic functions using different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine). The beta3GalT genes are distantly related to the Drosophila Brainiac gene and have the protein coding sequence contained in a single exon. The beta3GalT proteins also contain conserved sequences not found in the beta4GalT or alpha3GalT proteins. The carbohydrate chains synthesized by these enzymes are designated as type 1, whereas beta4GalT enzymes synthesize type 2 carbohydrate chains. The ratio of type 1:type 2 chains changes during embryogenesis. By sequence similarity, the beta3GalT genes fall into at least two groups: beta3GalT4 and 4 other beta3GalT genes (beta3GalT1-3, beta3GalT5). The encoded protein of this gene does not use N-acetylglucosamine as an acceptor sugar at all. [provided by RefSeq, Mar 2017]