

Product datasheet for **RG207176**

GALNT4 (NM_003774) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GALNT4 (NM_003774) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GALNT4
Synonyms:	GALNAC-T4; GALNACT4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG207176 representing NM_003774
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGTGAGGTGGACTTGGGCAGGCAAGAGCTGCCTGCTGCTGGCCTTTTAAACAGTGGCCTATATCT
 TCGTGGAGCTCTTGGTCTCTACTTTTCATGCCTCCGCAGGAGCCGGCCGTGCCAGGGAGCTGGGGTCAAG
 AAGGCTCTCAGGCCTCCAGAAAAATACGGAGGATTTGTCTCGACCGCTTTATAAAGGCCCCCTGCAGAT
 TCCCGTGCACCTGGGGAGTGGGGAAAGCCAGCAAACCTCCAGCTCAACGAGGATGAACTGAAGCAGCAAG
 AAGAACTCATTGAGAGATACGCCATCAATATTTACCTCAGTGACAGGATTTCCCTGCATCGACACATAGA
 GGATAAAAAGATGTATGAGTGTAAAGTCCAGAAGTTCAACTATAGGACACTTCTACCACCTCTGTTATC
 ATTGCTTTCTATAACGAAGCCTGGTCGACTTTGCTCCGTACCATTACAGTGTTTAGAACTTCTCCTG
 CAGTTCTTTTAAAGAGATCATCTTGGTGGATGACTTGAGTGACAGAGTTTATTTGAAGACACAACCTTGA
 AACTTACATCAGCAATCTTGATAGAGTACGCTTGATTAGGACCAATAAGCGAGAGGGGCTGGTTAGGGCC
 CGTCTGATTGGGGCCACTTTCGCCACTGGGACGCTCCTCACTTTCTGGATTGCTACTGTGAGTGTAAAT
 CCGGTTGGCTGGAACCGCTTTTGGAAAGGATTGGGAGAGATGAAACAGCAGTTGTGTGTCCTGTTATAGA
 CACAATTGATTGGAATACTTTTGAATTCTATATGCAGATAGGGGAGCCCATGATTGGTGGGTTTACTGG
 CGTTTAAACATTTAGTGGCATTCTGTCCCAAACAGGAAAGGGACAGGCGGATATCAAGAATTGACCCCA
 TCAGATCACCTACCATGGCTGGAGGACTGTTGCTGTGACGCAAGAAATATTTTCAGTACCTTGAACGTA
 TGACACAGGAATGGAAGTGTGGGGAGGTGAAAACCTTGAGCTGTCTTTTAGGGTGTGGCAGTGTGGTGGC
 AAATTGGAGATCCACCCGTGTTCCACGTGGGCCATGTGTTCCCAAAGCGGGCACCATATGCTCGCCCA
 ATTTCTACAGAATACTGCTCGGCAGCAGAAGTTGGATGGATGAATACAAAGACACTTCTACAATAG
 AAACCCTCCAGCAAGAAAAGAAGCTTATGGTGATATTTCTGAAAGAAAATTAACGAGAGCGGTTGAGA
 TGCAAGAGCTTTGACTGTTATTTGAAAAACGTTTTTCTAATTTACATGTTCCAGAGGATAGACCAGGCT
 GGCATGGGGCTATTTCGAGTAGAGGGATCTCGTCTGAATGTTTAGATTATAATTCTCCTGACAACAACCC
 CACAGGTGCTAACCTTTCACTGTTGGATGCCATGGTCAAGGAGGCAATCAATCTTTGAATATACTTCA
 AACAAAGAAATAAGGTTTAACTTGTGACAGAGTTATGTGACAGGTTACCTGAGCAAAAAAATTATGTGG
 GAATGCAAAATGTCCCAAAGATGGGTTCCCTGTACCAGCAAACATTATTTGGCATTTTAAAGAAGATGG
 AACTATTTTTACCCACACTCAGGACTGTGCTTAGTGCTTATCGGACACCGGAGGGCCGACCTGATGTA
 CAATGAGAACTGTGATGCTCTAGATAAAAATCAAATTTGGAGTTTTGAGAAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207176 representing NM_003774
 Red=Cloning site Green=Tags(s)

MAVRWTWAGKSCLLLAFLLTVAYIFVELLVSTFHASAGAGRARELGSRRLSGLQKNTEDLSRPLYKPPAD
 SRALGEWGKASKLQLNEDELKQQEELIERYAINIYLSDRISLHRHIEDKRMYECKSQKFNYRTLPTTSVI
 IAFYNEAWSTLLRTIHSVLETS PAVLLKEIILVDDLSDRVYLKTQLETYISNLDVRVLRIRTNKREGLVRA
 RLIGATFATGDVLTFLDCHCECNSGWLEPLLERIGRDETAVVCPVIDTIDWNTFEFYMQIGEPMIGGFDW
 RLTFQWHSVPKQERDRRISRIDPIRSPTMAGGLFAVSKKYFYQLGTYDTGMEVWGGENLELSFRVWQCGG
 KLEIHPCHSHVGHVFPKRAPYARPNFLQNTARAAEVMDEYKEHFYNRNPPARKEAYGDISERKLLRERLR
 CKSFDWYLKNVFPNLHVPEDRPGWHGAIRSRGISSECLDYNSPDNPTGANLSLFGCHGQGGNQFFEYTS
 NKEIRFNSVTELCAEVPEQKNYVGMQNCPKDGFVPANI IWHFKEDGTIFHPSGLCLSAVRTPEGRPDV
 QMRTCDALDKNQIWSFEK

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_003774

ORF Size: 1734 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_003774.3](#), [NP_003765.2](#)

RefSeq Size: 5360 bp

RefSeq ORF: 1737 bp

Locus ID: 8693

UniProt ID: [Q8N4A0](#)

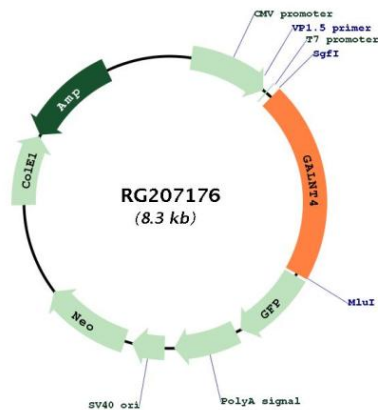
Cytogenetics: 12q21.33

Domains: RICIN, Glycos_transf_2

Protein Pathways: Metabolic pathways, O-Glycan biosynthesis

Gene Summary: This gene encodes a member of the UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family of enzymes. GalNAc-Ts initiate mucin-type O-linked glycosylation in the Golgi apparatus by catalyzing the transfer of GalNAc to serine and threonine residues on target proteins. They are characterized by an N-terminal transmembrane domain, a stem region, a luminal catalytic domain containing a GT1 motif and Gal/GalNAc transferase motif, and a C-terminal ricin/lectin-like domain. GalNAc-Ts have different, but overlapping, substrate specificities and patterns of expression. In vitro, the encoded protein can complement other GalNAc-Ts in the complete O-glycosylation of the mucin-1 tandem repeat and can O-glycosylate the P-selectin glycoprotein ligand-1 molecule. The coding region of this gene is contained within a single exon. Fusion transcripts, which combine part of this gene with the 5' exons of the neighboring POC1B (POC1 centriolar protein homolog B) gene, also exist. [provided by RefSeq, Dec 2010]

Product images:



Circular map for RG207176