

## Product datasheet for **RG214166**

### **GALNT1 (NM\_020474) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GALNT1 (NM_020474) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GALNT1
Synonyms:	GALNAC-T1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG214166 representing NM\_020474  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGAAAATTTGCATACTGCAAGTGGTCTAGCCACCTCCTTGATTTGGTACTCTTGGATATGTTCC  
 TGCTGCTTTACTTCAGTGAATGCAACAAATGTGATGAAAAAAGGAGAGAGGACTTCCTGCTGGAGATGT  
 TCTAGAGCCAGTACAAAAGCCTCATGAAGTCTCGGAGAAATGGGAAACCAGTCGTCATTCTAAAGAG  
 GATCAAGAAAAGATGAAAGAGATGTTTAAATCAATCAGTTCAATTTAATGGCAAGTGAAGATGTTGCAC  
 TCAACAGATCTTTACCAGATGTTAGGTTAGAAGGGTGTAAAACAAAGGTGTATCCAGATAATCTTCTAC  
 AACAAAGTGGTATTGTTTTCCACAATGAGGCTTGGAGCACACTTCTGCGAACTGTCCATAGTGCATT  
 AATCGCTACCAAGACACATGATAGAAGAAATGTTCTAGTAGATGATGCCAGTGAAGAGACTTTTTGA  
 AAAGCCTTTAGAGAGTTATGTAAAAAACTAAAAGTACCAGTTCATGTAATTCGAATGGAACAACGTTT  
 TGGATTGATCAGAGCTAGATTAAGAGGAGCTGCTGTGTCTAAAGGCCAAGTATCACCTTCTGGATGCC  
 CATTGTGAGTGTACAGTGGGATGGCTGGAGCCTCTCTGGCCAGGATCAAACATGACAGGAGAACAGTGG  
 TGTGTCCCATCATCGATGTGATCAGTGTGATACTTTTGGTACATGGCAGGCTCTGATATGACCTATGG  
 TGGTTCAACTGGAAGCTCAATTTTCGCTGGTATCCTGTTCCCAAGAGAAAATGGACAGAAGGAAAGGT  
 GATCGGACTCTTCTGTGAGGACACCTACCATGGCAGGAGGCCTTTTTTCAATAGACAGAGATTACTTTC  
 AGGAAATTGGAACATATGATGCTGGAATGGATATTTGGGAGGAGAAAACCTAGAAATTTCTTTAGGAT  
 TTGGCAGTGTGGAGAACTTTGGAAATGTTACATGCTCATGTTGGACATGTGTTTCGAAAGCTACA  
 CCTTACACGTTTCCAGGAGGCACAGGCGAGATTATCAATAAAAAAACAGACGACTTGCAGAAGTGTGGA  
 TGGATGAATTCAGAATTTCTTCTATATAATTTCTCCAGGTGTTACAAAGGTAGATTATGGAGATATC  
 GTCAAGAGTTGGTCTAAGACACAACTACAATGCAAAACCTTTTTCTGGTACCTAGAGAATATATCCT  
 GATTCTCAAATCCACGCTCACTATTTCTCATTGGGAGAGATACGAAATGTGGAACGAATCAGTGTCTAG  
 ATAACATGGCTAGAAAAGAGAATGAAAAAGTTGGAATTTTTAATTGCCATGGTATGGGGGTAATCAGGT  
 TTTCTCTTATACTGCCAACAAAGAAATAGAACAGATGACCTTTGCTTGGATGTTTCCAACTTAATGGC  
 CCAGTTACAATGCTCAAATGCCACCACCTAAAAGGCAACCACTCTGGGAGTATGACCCAGTGAAATTA  
 CCCTGCAGCATGTGAACAGTAATCAGTGCCTGGATAAAGCCACAGAAGAGGATAGCCAGGTGCCAGCAT  
 TAGAGACTGCAATGGAAGTCGGTCCAGCAGTGGCTTCTCGAAACGTCACCTGCCAGAAATATTC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>RG214166 representing NM\_020474  
 Red=Cloning site Green=Tags(s)

MRKFAYCKVVLATSLIWVLLDMFLLLYFSECNKCDEKKERGLPAGDVLEPVQKPHEGPGEMGKPVVIPKE  
 DQEKMKEMFKINQFNLMASEMIALNRSLPDVRLEGCKTKVYPDNLPTTSVVIVFHNEAWSTLLRTHVSVI  
 NRSPRHMIEEIVLVDDASERDFLKRPLESYVKKLKVPHVIRMEQRSLIRARLKGAAVSKGQVITFLDA  
 HCECTVGWLEPLLARIKHDRRTVVCPIIDVISDDTFEYMAGSDMTYGGFNWKLNFRWYPVPQREMDRRKG  
 DRTLPRVPTMAGGLFSIDRDYFQEIGTYDAGMDIWGGENLEISFRIWQCGGTLEIVTCSHVGHVFRKAT  
 PYTFPGGTGQIINKNNRRLAEVWVDEFKNFFYIISPGVTKVDYGDISSRVGLRHKLQCKPFSWYLENIYP  
 DSQIPRHYFSLGEIRNVETNQCLDNMARKENEKVGIFNCHGMGGNQVFSY TANKEIRTDLCLDVSKLNG  
 PVTMLKCHHLKGNQLWEYDPVKLTQHVNQCLDKATEEDSQVPSIRDCNGSRSQQWLLRNVTLP EIF

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

Sgfl-MluI



<b>ACCN:</b>	NM_020474
<b>ORF Size:</b>	1677 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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_020474.4</a>
<b>RefSeq Size:</b>	3778 bp
<b>RefSeq ORF:</b>	1680 bp
<b>Locus ID:</b>	2589
<b>UniProt ID:</b>	<a href="#">Q10472</a>
<b>Cytogenetics:</b>	18q12.2
<b>Domains:</b>	RICIN, Glycos_transf_2
<b>Protein Families:</b>	Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, O-Glycan biosynthesis
<b>Gene Summary:</b>	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. Transcript variants derived from this gene that utilize alternative polyA signals have been described in the literature. [provided by RefSeq, Jul 2008]