

## Product datasheet for **MG224112**

### **Galnt1 (NM\_013814) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Galnt1 (NM_013814) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Galnt1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG224112 representing NM\_013814  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGAAAATTTGCATATTGCAAGTGGTTCTAGCCACCTCCTTGGTTTGGTACTCTTGGATATGTTCC  
 TGCTGCTTTACTTCAGTGAATGCAACAAATGTGAAGAGAAGCAGGAGAGAGGACTTCCTGCTGGTGACGT  
 TCTAGAGCTAGTGCAGAAACCTCATGAAGTCTCGGAGAATGGGAAACCAGTCGTCATTCCGAAAGAG  
 GATCAAGAAAAGATGAAAGAGATGTTTAAACCAATCAGTTCACTTAATGGCAAGTGAAGATGATTGCAC  
 TCAACAGATCCTTACCAGATGTGAGGTTAGAGGGGTGTAACAAAGGTGATCCAGATAACCTTCTAC  
 AACAAAGTGGTATTGTTTTCCACAATGAGGCATGGAGCACACTTCTGCGAACAGTCCATAGTGCATT  
 AATCGCTCGCAAGACATATGATAGAAGAGATTGTTCTGTAGATGATGCCAGTGAAGAGACTTTTTGA  
 AAAGACCTCTAGAGATTATGTAAAAAAGTAAAGTCCCGTTCATGTAATCGAATGGAGCAGCGCTC  
 TGGGTTGATCAGAGCTAGATTGAAAGGAGCTGCTGTGTCAGAGGCCAAGTATCACCTTCTTAGATGCT  
 CACTGTGAATGCACCGCAGGGTGGCTGGAGCCTCTGTTGGCCCGGATCAAACATGACAGGAGGACAGTGG  
 TGTGTCCTATCATCGACGTGATCAGTGTGACACTTTCGAGTACATGGCCGGCTCTGACATGACCTATGG  
 TGGCTTCAACTGGAAGCTCAATTTTCGTTGGTATCCTGTTCCCGAGCAGAAAATGGACAGACGAAAAGGT  
 GACAGGACTCTTCTGTGAGAACACCTACAATGGCTGGAGGCCTTTTTTCAATAGACAGAGATTACTTTC  
 AGGAAATTGGAACATACGATGCTGGAATGGATATTTGGGGAGGAGAAAACCTAGAAAATTTCAATTTAGGAT  
 TTGGCAGTGTGGAGAACTTTGGAAATAGTGACATGCTCCCATGTTGGTCATGTGTTTCGGAAAGCTACA  
 CCTTACACATTTCCAGGAGGGACAGGGCAGATTATCAATAAGAATAACAGGCGGCTTGCAGAAGTATGGA  
 TGGATGAATCAAGAATTTCTTCTATATAATTTCTCCAGGTGTTACAAAGGTAGATTATGGAGATATATC  
 ATCAAGACTTGGCCTAAGACGTAACACTACAATGCAAAACCTTTCTTTGGTACCTAGAAAATATTTACCCT  
 GATTCTCAAATTCCTCGTCACTATTTCTCATTGGGAGAGATACGAAATGTGGAACAAATCAGTGTCTAG  
 ATAACATGGCTAGAAAAGAGAATGAAAAGGTTGGAATCTTTAATTGTCATGGTATGGGAGGTAATCAGGT  
 TTTCTCTACACTGCCAACAAAGAAATAGAACAGACGACCTTTGTTGGACGTTTCCAACTTAATGGC  
 CCAGTACCATGCTCAAATGCCACCACATAAAAGGCAACCAGCTCTGGGAGTATGACCCAGTGAAATTA  
 CCCTGCAGCATGTGAACAGCAATCAGTGCCTGGATAAAGCCACAGAGGAGGACAGCCAGGTGCCAGCAT  
 TAGAGACTGCACTGGAAGCCGGTCCAGCAGTGGCTTCTCGAAACGTCACCTTCCAGAAAATATTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG224112 representing NM\_013814  
 Red=Cloning site Green=Tags(s)

MRKFAYCKVVLATSLVWLLDMFLLL YFSECNKCEEKQERGLPAGDVLELVQKPHEGPGEMGKPVVIPKE  
 DQEKMKEMFKTNQFNLMASEMIALNRSLPDVRLEGCKTKVYYPDNLPTTSVVIVFHNEAWSTLLRTHVSVI  
 NRSRPHMIEEIVLVDDASERDFLKRPLESYVKKLVKVPVHVIRMEQRSLIRARLKGAAVSRGQVITFLDA  
 HCECTAGWLEPLLARIKHDRRTVVCPIIDVISEDTFEYMAGSDMTYGGFNWKLNFRWYYPVQREMRRKG  
 DRTLTPVRTPTMAGGLFSIDRDYFQEIGTYDAGMDIWGGENLEISFRIWQCGGTLEIVTCSHVGHVFRKAT  
 PYTFPGGTGQIINKNNRRLAEVWMDEFKNFFYIISPGVTKVDYGDISSRLGLRRKLQCKPFSWYLENIYP  
 DSQIPRHYFSLGEIRNVEITNQCLDNMARKENEKVGIFNCHGMGGNQVFSYANKEIRTDLCLDVSKLNG  
 PVTMLKCHHLKGNQLWEYDPVKLTQHVNSNQCLDKATEEDSQVPSIRDCTGSRSQWLLRNVTLP EIF

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:

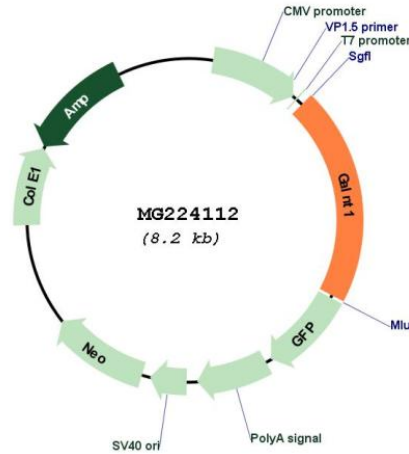


*EcoRI* *BamHI* *KpnI* *RBS* *Kozac Consensus* *SgfI* *AscI*  
CTATAGGGCGGCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

*HindIII* *NheI* *RsrII* *MluI* *NotI* *XhoI* *GFP Tag*  
CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC -----  
T R T R P L E M E S D - - -

*PmeI* *FseI*  
----- GAA GAA AGA GTT TAA ACGGCGGCGCGGAGCT  
- - - E E R V Stop

Plasmid Map:



ACCN: NM\_013814

ORF Size: 1677 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\\_013814.2](#)

**RefSeq Size:** 3996 bp

**RefSeq ORF:** 1680 bp

**Locus ID:** 14423

**UniProt ID:** [O08912](#)

**Cytogenetics:** 18 A2

**Gene Summary:** Catalyzes the initial reaction in O-linked oligosaccharide biosynthesis, the transfer of an N-acetyl-D-galactosamine residue to a serine or threonine residue on the protein receptor. Has a broad spectrum of substrates for peptides such as EA2, Muc5AC, Muc1a, Muc1b and Muc7. [UniProtKB/Swiss-Prot Function]