

## Product datasheet for **RG225734**

### **MGAT1 (NM\_001114619) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MGAT1 (NM_001114619) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MGAT1
Synonyms:	GLCNAC-TI; GLCT1; GLYT1; GNT-1; GNT-I; GnTI; MGAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225734 representing NM\_001114619  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGAAGAAGCAGTCTGCAGGGCTTGTGCTGTGGGGCGCTATCCTCTTTGTGGCTGGAATGCCCTGC  
 TGCTCCTCTTCTTGGACGCGCCAGCACCTGGCAGGCCACCCTCAGTCAGCGCTCTCGATGGCGACCC  
 CGCCAGCCTACCCGGGAAGTGATTGCGCTGGCCCAAGACGCGGAGGTGGAGCTGGAGCGCAGCGTGGG  
 CTGCTGCAGCAGATCGGGGATGCCCTGTCGAGCCAGCGGGGAGGGTGCCACCAGCGGCCCTCCCGCC  
 AGCCGCGTGTGCTGTGACCCCGCGCCGGCGGTATTCCCATCCTGGTCATCGCTGTGACCGCAGCAC  
 TGTTCCGGCGTGCCTGGACAAGCTGCTGCATTATCGGCCCTCGGCTGAGCTTTCCCATCATCGTTAGC  
 CAGGACTGCGGGCAGGAGACGGCCAGGCCATCGCCTCTACGGCAGCGGGTACGCACATCCGGC  
 AGCCCGACTGAGCAGCATTGCGGTGCCCGGACCACCAGTTCAGGGCTACTACAAGATCGCGCG  
 CACTACCGCTGGGCGCTGGGCCAGGTCTCCGGCAGTTTCGCTTCCCGCGGCCGTGGTGGGAGGAT  
 GACCTGGAGGTGGCCCCGACTTCTTCGAGTACTTTCCGGCCACCTATCCGCTGCTGAAGGCCGACCCT  
 CCCTGTGGTGCCTCTCGCCTGGAATGACAACGGCAAGGAGCAGATGGTGGACGCCAGCAGGCCCTGAGCT  
 GCTTACCGCACCGACTTTTTCCCTGGCCTGGGCTGGCTGCTGTTGGCCGAGCTCTGGGCTGAGCTGGAG  
 CCCAAGTGGCCAAAGGCCTTCTGGGACGACTGGATGCGGCGGCCGGAGCAGCGGCAGGGGCGGCCCTGCA  
 TACGCCCTGAGATCTCAAGAACGATGACCTTGGCCGCAAGGGTGTGAGCCACGGGCAGTTCTTTGACCA  
 GCACCTCAAGTTTATCAAGCTGAACCAGCAGTTTGTGACTTCACCCAGCTGGACTGTCTTACCTGCAG  
 CGGGAGGCCTATGACCGAGATTTCTCGCCCGCTACGGTGTCCCGAGCTGCAGGTGGAGAAAGTGA  
 GGACCAATGACCGGAAGGAGCTGGGGAGGTGCGGGTGCAGTATACGGGCAGGGACAGCTTCAAGGCTTT  
 CGCCAAGGCTCTGGGTGCATGGATGACCTTAAGTCGGGGTTCGAGAGCTGGCTACCGGGGATTTGTC  
 ACCTTCCAGTTCCGGGGCCCGCTGTCCACCTGGCGCCCCACTGACGTGGGAGGCTATGATCCTAGCT  
 GAAT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

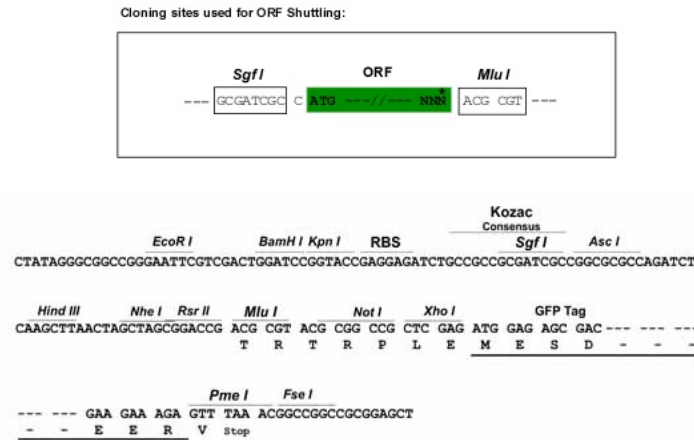
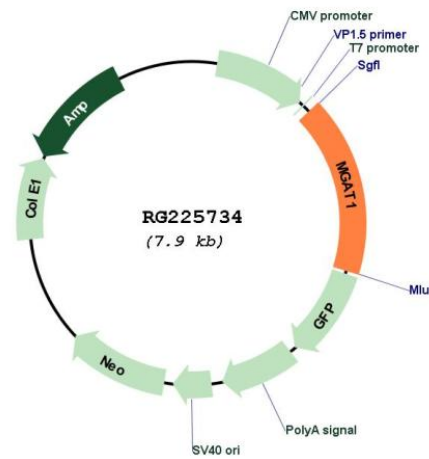
>RG225734 representing NM\_001114619  
 Red=Cloning site Green=Tags(s)

MLKKQSAGLVWGAIFVAWNALLLFFWTRPAPGRPPSVSALDGDPA SLTREVIRLAQDAEVELERQRG  
 LLQQIGDALSSQRGRVPTAAPPAQPRVPVTPAPAVIPIILVIACDRSTVRRCLDKLLHYRPSAELFPIIVS  
 QDCGHEETAQAIASYGS AVTHIRQPDLSIAVPPDHRKFQGYK IARHYRWALGQVFRFRFPAAVVVED  
 DLEVAPDFFEYFRATYPLLKADPSLWCVSAWNDNGKEQMV DARSPELLYRTDFPGLGWLLLAELWAELE  
 PKWPKAFWDDWMRRPEQRQGRACIRPEISRMTFGRKGVSHGQFFDQHLKFIKLNQFVHFTQLDLSYLQ  
 REAYDRDFLARVYGAPQLQVEKVRTNDRKELGEVRYQYTG RDSFKAFKALGVMDDLKSGVPRAGYRGIV  
 TFQFRGRRVHLAPPLTWEYDPSWN

**TR**TRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001114619

**ORF Size:** 1335 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.

<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>	<u><a href="#">NM_001114619.1</a></u> , <u><a href="#">NP_001108091.1</a></u>
<b>RefSeq Size:</b>	2658 bp
<b>RefSeq ORF:</b>	1338 bp
<b>Locus ID:</b>	4245
<b>UniProt ID:</b>	<u><a href="#">P26572</a></u>
<b>Cytogenetics:</b>	5q35.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, N-Glycan biosynthesis
<b>Gene Summary:</b>	There are believed to be over 100 different glycosyltransferases involved in the synthesis of protein-bound and lipid-bound oligosaccharides. UDP-N-acetylglucosamine:alpha-3-D-mannoside beta-1,2-N-acetylglucosaminyltransferase I is a medial-Golgi enzyme essential for the synthesis of hybrid and complex N-glycans. The protein, encoded by a single exon, shows typical features of a type II transmembrane protein. The protein is believed to be essential for normal embryogenesis. Several variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]