

Product datasheet for **RG200717**

MGAT1 (NM_002406) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT1 (NM_002406) 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:

>RG200717 representing NM_002406
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGAAGAAGCAGTCTGCAGGGCTTGTGCTGTGGGGCGCTATCCTCTTTGTGGCTGGAATGCCCTGC
 TGCTCCTTTCTTCTGGACGCGCCAGCACCTGGCAGGCCACCCTCAGTCAGCGCTCTCGATGGCGACCC
 CGCCAGCCTCACCCGGGAAGTGATTGCGCTGGCCCAAGACGCGGAGGTGGAGCTGGAGCGGCAGCGTGGG
 CTGCTGCAGCAGATCGGGGATGCCCTGTCGAGCCAGCGGGGGAGGGTGCCACCAGCGGCCCTCCCGCCC
 AGCCGCGTGTGCCTGTGACCCCGCGCCGGCGGTATTCCCATCCTGGTCATCGCTGTGACCGCAGCAC
 TGTTCCGGCGTGCCTGGACAAGCTGCTGCATTATCGGCCCTCGGCTGAGCTCTTCCCATCATCGTTAGC
 CAGGACTGCGGGCAGGAGACGGCCAGGCCATCGCCTCTACGGCAGCGGGTACGCACATCCGGC
 AGCCCGACTGAGCAGCATTGCGGTGCCCGGACCACCGCAAGTCCAGGGCTACTACAAGATCGCGCG
 CCACTACCGCTGGGCGCTGGGCCAGGTCTCCGGCAGTTTCGCTTCCCGCGGCCGTGGTGGGAGGAT
 GACCTGGAGGTGGCCCCGACTTCTTCGAGTACTTTCCGGCCACCTATCCGCTGCTGAAGGCCGACCCCT
 CCCTGTGGTGCCTCGGCCGGAATGACAACGGCAAGGAGCAGATGGTGGACGCCAGCAGGCGCTGAGCT
 GCTTACCGCACCGACTTTTTCCCTGGCCTGGGCTGGCTGCTGTTGGCCGAGCTCTGGGCTGAGCTGGAG
 CCCAAGTGGCCAAAGGCCTTCTGGGACGACTGGATGCGGCGGCCGGAGCAGCGGCAGGGGCGGCCCTGCA
 TACGCCCTGAGATCTCAAGAACGATGACCTTGGCCGCAAGGGTGTGAGCCACGGGCAGTTCTTTGACCA
 GCACCTCAAGTTTATCAAGCTGAACCAGCAGTTTGTGCACTTACCCAGCTGGACCTGTCTTACCTGCAG
 CGGGAGGCCTATGACCGAGATTTCTCGCCCGCTACGGTGTCCCGAGCTGCAGGTGGAGAAAGTGA
 GGACCAATGACCGGAAGGAGCTGGGGAGGTGCGGGTGCAGTATACGGGCAGGGACAGCTTCAAGGCTTT
 CGCCAAGGCTCTGGGTGCATGGATGACCTTAAGTCGGGGTTCGAGAGCTGGCTACCGGGGTATTGTC
 ACCTTCCAGTTCCGGGGCCCGCTGTCCACCTGGCGCCCCACCGACGTGGGAGGGCTATGATCCTAGCT
 GAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200717 representing NM_002406
 Red=Cloning site Green=Tags(s)

MLKKQSAGLVWGAIFVAWNALLLFFWTRPAPGRPPSVSALDGDPAASLTREVIRLAQDAEVELERQRG
 LLQQIGDALSSQRGRVPTAAPPAPRVPVTPAPAVIPIILVIACDRSTVRRCLDKLLHYRPSAELFPIIVS
 QDCGHEETAQAIASYGSVTHIRQPDLSIAVPPDHRKFQGYK IARHYRWALGQVFRFRFPAAVVVED
 DLEVAPDFFEYFRATYPLLKADPSLWCVSAWNDNGKEQMVDASRPELLYRTDFPGLGWLLLAELWAELE
 PKWPKAFWDDWMRRPEQRQGRACIRPEISRMTFGRKGVSHGQFFDQHLKFIKLNQFVHFTQLDLSYLQ
 REAYDRDFLARVYGAPQLQVEKVRTNDRKELGEVRVQYTGDRSFKAFKALGVMDDLKSGVPRAGYRGIV
 TFQFRGRRVHLAPPPTWEGYDPSWN

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002406

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.

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_002406.2](#), [NP_002397.1](#)

RefSeq Size: 2937 bp

RefSeq ORF: 1338 bp

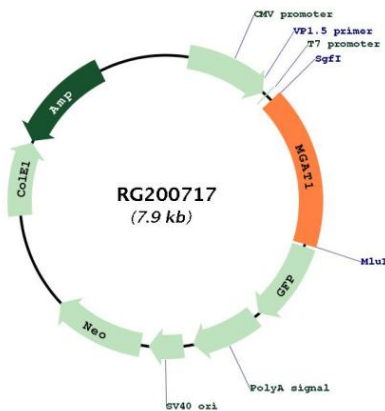
Locus ID: 4245

UniProt ID: [P26572](#)

Cytogenetics: 5q35.3

Domains:	GNT-I
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, N-Glycan biosynthesis
Gene Summary:	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]

Product images:



Circular map for RG200717