

Product datasheet for **RC225733**

MGAT1 (NM_001114618) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT1 (NM_001114618) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MGAT1
Synonyms:	GLCNAC-TI; GLCT1; GLYT1; GNT-1; GNT-I; GnTI; MGAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC225733 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGAAGAAGCAGTCTGCAGGGCTTGTGCTGTGGGGCGCTATCCTCTTGTGGCTGGAATGCCCTGC
 TGCTCCTCTTCTTCTGGACGCGCCAGCACCTGGCAGGCCACCCTCAGTCAGCGCTCTCGATGGCGACCC
 CGCCAGCCTCACCCGGGAAGTGATTGCGCTGGCCAAAGACGCGGAGGTGGAGCTGGAGCGCAGCGTGGG
 CTGCTGCAGCAGATCGGGGATGCCCTGTCGAGCCAGCGGGGAGGGTGCCACCGCGGCCCTCCCGCCC
 AGCCGCGTGTGCCTGTGACCCCGCGCCGGCGGTATTCCCATCCTGGTCATCGCTGTGACCGCAGCAC
 TGTTCCGGCGTGCCTGGACAAGCTGCTGCATTATCGGCCCTGGCTGAGCTTCCCCATCATCGTTAGC
 CAGGACTGCGGGCAGGAGACGGCCAGGCCATCGCCTCTACGGCAGCGGGTACGCACATCCGGC
 AGCCCGACTGAGCAGCATTGCGGTGCCCGGACCACCGCAAGTCCAGGGCTACTACAAGATCGCGG
 CCACTACCGCTGGGCGCTGGGCCAGGTCTCCGGCAGTTTCGCTTCCCCGCGCCGTGGTGGAGGAT
 GACCTGGAGGTGGCCCCGACTTCTTCGAGTACTTTCGGGCCACCTATCCGCTGCTGAAGGCCGACCCCT
 CCCTGTGGTGCCTCTCGGCTGGAATGACAACGGCAAGGAGCAGATGGTGGACGCCAGCAGGCTGAGCT
 GCTCTACCGCACCGACTTTTTCCCTGGCCTGGGCTGGCTGCTGTTGGCCGAGCTCTGGGCTGAGCTGGAG
 CCCAAGTGGCAAAGGCCTTCTGGGACGACTGGATGCGGCGGCCGGAGCAGCGGCAGGGGCGGCCCTGCA
 TACGCCCTGAGATCTCAAGAACGATGACCTTGGCCGCAAGGGTGTGAGCCACGGGCAGTTCTTTGACCA
 GCACCTCAAGTTTATCAAGCTGAACCAGCAGTTTGTGCACTTACCCAGCTGGACTGTCTTACCTGCAG
 CGGGAGGCCTATGACCGAGATTTCTCGCCCGCTACGGTGTCCCGAGCTGCAGGTGGAGAAAGTGA
 GGACCAATGACCGAAGGAGCTGGGGAGGTGCGGGTGCAGTATACGGGCAGGGACAGCTTCAAGGCTTT
 CGCCAAGGCTCTGGGTGTCATGGATGACCTTAAGTCGGGGGTCCGAGAGCTGGCTACCGGGGATTGTC
 ACCTTCCAGTTCGGGGCCCGCTGTCCACCTGGCGCCCCACCGACGTGGGAGGCTATGATCCTAGCT
 GAAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225733 protein sequence
 Red=Cloning site Green=Tags(s)

MLKKQSAGLVWGAIFVAWNALLLFFWTRPAPGRPPSVSALDGPASLTREVIRLAQDAEVELERQRG
 LLQQIGDALSSQGRVPTAAPPAPRVPVTPAPAVIPIILVIACDRSTVRRCLDKLLHYRPSAELFPIIVS
 QDCGHEETAQAIASYGSVTHIRQPDLSIAVPPDHRKFQGYK IARHYRWALGQVFRQFRFPAVVVED
 DLEVAPDFFEYFRATYPLLKADPSLWCVSAWNDNGKEQMVDASRPELLYRTDFFPGLGWLLLAELWAELE
 PKWPKAFWDDWMRRPEQRQGRACIRPEISRTMTFGRKGVSHGQFFDQHLKFIKLNQQFVHFTQLDLSYLQ
 REAYDRDFLARVYGAPQLQVEKVRTNDRKELGEVRVQYTGGRSFKAFKALGVMDDLKSGVPRAGYRGIV
 TFQFRGRRVHLAPPPTWEGYDPSWN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6082_f05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001114618

ORF Size: 1335 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001114618.1](#), [NP_001108090.1](#)

RefSeq Size: 3181 bp

RefSeq ORF: 1338 bp

Locus ID: 4245

UniProt ID: [P26572](#)

Cytogenetics: 5q35.3

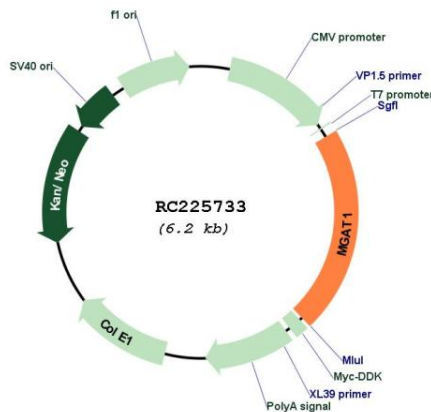
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, N-Glycan biosynthesis

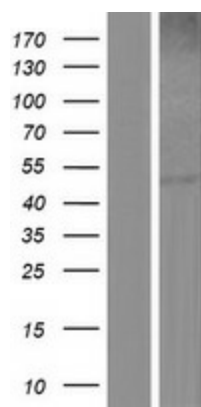
MW: 50.9 kDa

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 RC225733



Western blot validation of overexpression lysate (Cat# [LY426497]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225735] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).