

## Product datasheet for **SC318883**

### MGAT1 (NM\_001114618) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT1 (NM_001114618) Human Untagged Clone
Tag:	Tag Free
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)
Fully Sequenced ORF:	>SC318883 representing NM_001114618. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
GATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**  
ATGCTGAAGAAGCAGTCTGCAGGGCTTGCTGTGGGGCGCTATCCTCTTTGTGGCTGGAATGCCCTG  
CTGCTCCTCTTCTTGACGCGCCAGCACCTGGCAGGCCACCCTCAGTCAGCGCTCTCGATGGCGAC  
CCCGCCAGCCTCACCCGGGAAGTGATTGCGCTGGCCCAAGACGCCGAGGTGGAGCTGGAGCGGCAGCGT  
GGGCTGCTGCAGCAGATCGGGGATGCCCTGTCGAGCCAGCGGGGAGGGTGCCACCGCGGCCCTCCC  
GCCAGCGCGTGTGCCTGTGACCCCGCGCGCGGTGATTCCATCCTGGTCATCGCCTGTGACCGC  
AGCACTGTTTCGGCGCTGCCTGGACAAGCTGCTGCATTATCGGCCCTCGGCTGAGCTCTTCCCCATCATC  
GTTAGCCAGGACTGCGGGCAGGAGGAGACGGCCAGGCCATCGCCTCCTACGGCAGCGCGGTACGCAC  
ATCCGGCAGCCGACCTGAGCAGCATTGCGGTGCCGCCGACACCGCAAGTTCAGGGCTACTACAAG  
ATCGCGCGCCACTACCGCTGGGCGCTGGGCCAGGTCTTCGGCAGTTTCGCTTCCCCGCGGCCGTGGTG  
GTGGAGGATGACCTGGAGGTGGCCCCGACTTCTCGAGTACTTTCGGGCCACCTATCCGCTGCTGAAG  
GCCGACCCCTCCCTGTGGTGCCTCGGCTGGAATGACAACGGCAAGGAGCAGATGGTGGACGCCAGC  
AGGCCTGAGCTGCTCTACCGCACCAGCTTTTCCCTGGCTGGGTGGCTGCTGTTGGCCGAGCTCTGG  
GCTGAGCTGGAGCCCAAGTGCCAAAGGCCTTCTGGGACGACTGGATGCGGCGGCCGAGCAGCGGCAG  
GGCGGGCCTGCATACGCCCTGAGATCTCAAGAACGATGACCTTTGGCCGCAAGGTGTGAGCCACGGG  
CAGTTCTTTGACCAGCACCTCAAGTTTATCAAGCTGAACGACGAGTTTGTGCACTTCACCCAGCTGGAC  
CTGTCTTACCTGCAGCGGAGGCCTATGACCGAGATTTCTCGCCCGCTACGGTGCTCCCCAGCTG  
CAGGTGGAGAAAGTGAGGACCAATGACCGGAAGGAGCTGGGGGAGGTGCGGGTGCAATACGGGCAGG  
GACAGCTTCAAGGCTTTCGCCAAGGCTCTGGGTGTGATGACCTTAAGTCGGGGGTTCCGAGAGCT  
GGCTACCGGGGTATTGTACCTTCCAGTTCGGGGCGCCGTGTCCACCTGGCGCCCCACTGACGTGG  
GAGGGCTATGATCCTAGCTGAAT**AG**  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC



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<b>Restriction Sites:</b>	Sgfl-MluI
<b>ACCN:</b>	NM_001114618
<b>Insert Size:</b>	1338 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_001114618.1</a>
<b>RefSeq Size:</b>	3181 bp
<b>RefSeq ORF:</b>	1338 bp
<b>Locus ID:</b>	4245
<b>UniProt ID:</b>	<a href="#">P26572</a>
<b>Cytogenetics:</b>	5q35.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, N-Glycan biosynthesis
<b>MW:</b>	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]

Transcript Variant: This variant (1) differs in the 5' UTR compared to variant 6. Variants 1-23 all encode the same protein.