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Product datasheet for SC118672

MGAT1 (NM_002406) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT1 (NM_002406) Human Untagged Clone
Tag:	Tag Free
Symbol:	MGAT1
Synonyms:	GLCNAC-TI; GLCT1; GLYT1; GNT-1; GNT-I; GnTI; MGAT
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC118672 sequence for NM_002406 edited (data generated by NextGen Sequencing)

ATGCTGAAGAAGCAGTCTGCAGGGCTTGTGCTGTGGGGCGCTATCCTCTTTGTGGCCTGG
AATGCCCTGCTGCTCCTCTTCTTCTGGACGCGCCCAGCACCTGGCAGGCCACCCTCAGTC
AGCGCTCTCGATGGCGACCCCGCCAGCCTCACCCGGGAAGTGATTCGCCTGGCCCAAGAC
GCCGAGGTGGAGCTGGAGCGGCAGCGTGGGCTGCTGCAGCAGATCGGGGATGCCCTGTCG
AGCCAGCGGGGGAGGGTGCCCACCGCGGCCCCTCCCGCCCAGCCGCGTGTGCCTGTGACC
CCCGCGCCGGCGGTGATTCCCATCCTGGTCATCGCCTGTGACCGCAGCACTGTTCGGCGC
TGCCTGGACAAGCTGCTGCATTATCGGCCCTCGGCTGAGCTCTTCCCCATCATCGTTAGC
CAGGACTGCGGGCACGAGGAGACGGCCCAGGCCATCGCCTCCTACGGCAGCGCGGTCACG
CACATCCGGCAGCCCGACCTGAGCAGCATTGCGGTGCCGCCGGACCACCGCAAGTTCCAG
GGCTACTACAAGATCGCGCGCCACTACCGCTGGGCGCTGGGCCAGGTCTTCCGGCAGTTT
CGCTTCCCCGCGGCCGTGGTGGTGGAGGATGACCTGGAGGTGGCCCCGGACTTCTTCGAG
TACTTTCAGGCCACCTATCCGCTGCTGAAGGCCGACCCCTCCCTGTGGTGCGTCTCGGCC
TGGAATGACAACGGCAAGGAGCAGATGGTGGACGCCAGCAGGCCTGAGCTGCTCTACCGC
ACCGACTTTTTCCCTGGCCTGGGCTGGCTGCTGTTGGCCGAGCTCTGGGCTGAGCTGGAG
CCCAAGTGGCCAAAGGCCTTCTGGGACGACTGGATGCGGCGGCCGGAGCAGCGGCAGGGG
CGGGCCTGCATACGCCCTGAGATCTCAAGAACGATGACCTTTGGCCGCAAGGGTGTGAGC
CACGGGCAGTTCTTTGACCAGCACCTCAAGTTTATCAAGCTGAACCAGCAGTTTGTGCAC
TTCACCCAGCTGGACCTGTCTTACCTGCAGCGGGAGGCCTATGACCGAGATTTCCTCGCC
CGCGTCTACGGTGCTCCCCAGCTGCAGGTGGAGAAAGTGAGGACCAATGACCGGAAGGAG
CTGGGGGAGGTGCGGGTGCAGTATACGGGCAGGGACAGCTTCAAGGCTTTCGCCAAGGCT
CTGGGTGTCATGGATGACCTTAAGTCGGGGGTTCCGAGAGCTGGCTACCGGGGTATTGTC
ACCTTCCAGTTCCGGGGCCGCCGTGTCCACCTGGCGCCCCCACCGACGTGGGAGGGCTAT
GATCCTAGCTGGAATTAG

Clone variation with respect to NM_002406.3
668 g=>a;1304 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002406 unedited

NNTTTGTCAAATTTGTATACGACTCCTATAGGGCGGCCGCGAATTCGCACGAGGGTCAGC
TCAGCCATGGACTTTGGACCTGGGTAAGAAGAGAGAAGCTGCACTTTGGTGGATCTGATT
TGGGATTCTCAGTTTTGAAAATGGAGTGCTGAATGGGGATTTGATGATCTCCTGGAGAGC
AACTGAGACAAGAGAAGAAAGGTGCATGGCTGCCTCCTAATCCCATAGTCCAGAGGAGGC
ATCCCTAGGACTGCGGGCAAGGGAGCCGGGCAAGCCCAGGGCAGCCTTGAACCGTCCCCT
GGCCTGCCCTCCCCGGTGGGGGCCAGGATGCTGAAGAAGCAGTCTGCAGGGCTTGTGCTG
TGGGGCGCTATCCTCTTTGTGGCCTGGAATGCCCTGCTGCTCCTCTTCTTCTGGACGCGC
CCAGCACCTGGCAGGCCACCCTCAGTCAGCGCTCTCGATGGCGACCCCGCCAGCCTCACC
CGGGAAGTGATTCGCCTGGCCCAAGACGCCGAGGTGGAGCTGGAGCGGCAGCGTGGGCTG
CTGCAGCAGATCGGGGATGCCCTGTCGAGCCAGCGGGGNGAGGGTGCCCACCGCGGCCCC
TCCCGCCCAGCCGCGTGTGCCTGTGACCCCCGCGCCGGCGGTGATTCCCATCCTGGTCAT
CGCCTGTGACCGCAGCACTGTTCGGCGCTGCCTGGACAAGCTGCTGCATTATCGGCCCTC
GGCTGAGCTCTTCCCATCATCGTTAGCCAGGACTGCGGGCACGAGGAGACGGCCCAGGCC
ATCGCCTTCTACGGNAGACGCGGTCACGCACATTCGGCAGCCCGACCTGAGACATTTTTG
CGGTGCCGNCGGACCACCCGCAGTTCCAGGGCTACTACAGGATCGCGCGCCTTACGCTGG
GGCGCTGGGCCAGCTTTTNCCGTAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002406 unedited
GGGGGGGGANNNNNNNNCCTCTTTTNNNNNNNNNCCTCTGTGNACCTGGACCGCATTTTA
NGATCNGTTTTTTTTTTTTTTTTTTACAAACATTCAGCCTTTTATTTTAAAAAAAATTCT
GTAGCTTCCACTTTCTTTCATGAAACTGAGGTCAGGCAAGAAACAAAAATCCACCAAGTC
CTCTCCATCCTGCCATGGCGTCCTGGCCTGTGAGGACATGGGGCGCCTGGGAGCGGGCGG
GGAGGCTGGGCAGCACTGGGCCAGAGGCGTCCTGGTCACTGCTCCACCTGGTCACTGCTC
CACCTCATGCTGAGAGGAGCCTGTGTGTCAAACCCCAGGGGAAAAAGGGACAGGCAGATC
GAATTCTGTCTTCTACCAAGCCAGCAGGAGCCTCCTAGAGCAACAGGGAGGGCACTGATT
TTCAGAAAGGAGGGGTCAGGGCATAGTCCCTCTCTGAGGTAAGGCAAGAGAGAGGTTGTC
CCAGCACAAGGCCTTCCTCCCTGCACCTCTCTCCTGACAGCTGGGCATGGGCTGAGGAGA
GGTCTTGCTTGCCCCCTTCAACTTTCCATCTCAGAACTATAAACTGCTAGGCTGCAAGGA
GAGAGGGCTAAGTGGGGGTCAAACAGGANAGAAGGGCAGGAGGCANTGAGCCCCGATGAC
CCACCAACTNCACCNAGCCCTNGACAGGAAGCCCCTTTGGTTAGTATCATTTTGGCCACA
AATATGTCCCCCTTCTCCCATAACTCAGTCCCCACTGGNGGAAAGGGGAGCANGTATANA
AGGAGGGCTCGTGCCCCTGNNCTGAAAAACCAGGTCAGGNAAAAGGGGTCTGGTCAAGAA
AGCGAACGGTGCCAAACTCTCTGCCCATGCTCCAAGAGAAAGCTCAAGACGTGGGCAATT
TCTGGCCCCCACAAGCNCCAGGGCCCCCCACCCAACAGTGGGTTTCCTGTCTAATACCCC
CGCACAATACCTAAAATAAGTCCCCCTGAACTGNACTCCCTTGAGAAACGGAGAAATATN
CCCTCTGNTATCATTT

Restriction Sites: NotI-NotI

ACCN: NM_002406

Insert Size: 2560 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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] Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 6. Variants 1-23 all encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments and experimental data.