

Product datasheet for **SC115491**

MGAT4A (NM_012214) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT4A (NM_012214) Human Untagged Clone
Tag:	Tag Free
Symbol:	MGAT4A
Synonyms:	GnT-4a; GNT-IV; GNT-IVA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC115491 sequence for NM_012214 edited (data generated by NextGen Sequencing)

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ATGAGGCTCCGCAATGGAAGTGTAGCCACTGCTTTAGCATTATCACTTCCTTCCTTACT
TTGTCTTGGTATACTACATGGCAAAATGGGAAAGAAAACTGATTGCTTATCAACGAGAA
TTCCTTGCCTTTGAAAGAACGCTCTCGAATAGCTGAACACAGAATCTCACAGCGCTCTTCT
GAATTAATAACGATTGTGCAACAGTTCAAGCGTGTAGGAGCAGAAACAAATGGAAGTAAG
GATGCGTTGAATAAGTTTTTCAGATAATACCCTAAAGCTGTTAAAGGAGTTAACAAGCAAA
AAATCTCTTCAAGTGCCAAGTATTATTATCATTTCCTCATTATTGAAAAATGAAGGA
AGTCTTCAACCTGCTGTACAGATTGGCAACGGAAGAACAGGAGTTTCAATAGTCATGGGC
ATTCCACAGTGAAGAGAGAAGTTAAATCTTACCTCATAGAAACTCTTCATTCCCTTATT
GATAACCTGTATCCTGAAGAGAAGTTGGACTGTGTTATAGTAGTCTTCATAGGAGAGACA
GATATTGATTATGTACATGGTGTGTAGCCAACCTGGAGAAAGAATTTTCTAAAGAAATC
AGTTCTGGCTTGGTGAAGTCATATCACCCCTGAAAGCTATTATCCTGACTTGACAAAC
CTAAAGGAGACATTTGGAGACTCCAAGAAAGAGTAAGATGGAGAACAAGCAAAACCTA
GATTACTGTTTTCTAATGATGTATGCTCAAGAAAAGGGCATATATTACATTCAGCTTGAA
GATGATATTATTGTCAAACAAAATTATTTAATACCATAAAAAATTTTGCCTTCAACTT
TCTTCTGAGGAATGGATGATTCTAGAGTTTTCCAGCTGGGCTTCATTGGTAAAAATGTTT
CAAGCGCCGGATCTTACTCTGATTGTAGAATTCATATTCATGTTTTACAAGGAGAAACCC
ATTGATTGGCTCCTGGACCATATTCTCTGGGTGAAAGTCTGCAACCCTGAAAAAGATGCA
AAACATTGTGATAGACAGAAAGCAAAATCTGCGAATTCGCTTCAGACCTTCCCTTTTCCAA
CATGTTGGTCTGCACTCATCACTATCAGGAAAAATCCAAAACTCACGGATAAAGATTAT
ATGAAACCATTACTTCTTAAAAATCCATGTAACCACCTGCGGAGGTATCTACTTCTCTG
AAGTCTACCAAGGGCATACGCTGGAGAAAACTTACATGGGAGAGGATTTCTTCTGGCT
ATCACACCGATAGCTGGAGACTACATCTTGTTTTAAATTTGATAAACCAAGTCAATGTAGAA
AGTATTTTGTTCATAGCGCAACCAAGAACATCCTGGAGATATTCTGCTAAACCAACT
GTGGAAGTTTTGCCTTTTAAAGAGTGAAGGTTTGGAAATAAGCAAAGAAACCAAAGACAAA
CGATTAGAAGATGGCTATTTCAGAATAGGAAAATTTGAGAATGGTGTGCAGAAGGAATG
GTGGATCCAAGTCTCAATCCATTTTCAGCCTTTCGACTTTCAGTTATTCAGAATTCTGCT
GTTTGGGCCATTCTTAATGAGATTCATATTAATAAAGCCACCAACTGA
    
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Clone variation with respect to NM_012214.2

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_012214 unedited
GGGGTCAGGAACNGAAAACGACTTACTATAGGCGGCCGCGAATTCGCACGAGGCCAGCGG
CGGGAAGGGAAAAGGCCGAGGCATCAGCGTGTGAAGACCGCAAAGACGATCCCGAGTACA
GTTGTGAACAGCATTGCTGCTAGGCTCCTCCTGCAGATCATCTGAAATGAACCTCTCTTA
TTGATTTTTATTGGCCTAGAGCCAGGAGTACTGCATTGACTTTCAGGGTAAAAAG
AAAACAGTCCCTGTTGTTGTATCATAAACATATGGACCAGTGTGATGGTGAATGAGAT
GAGGCTCCGCAATGGAAGTGTAGCCACTGCTTTAGCATTATCACTTCCTTCCTTACTTT
GTCTTGTATACTACATGGCAAAATGGGAAAGAAAACTGATTGCTTATCAACGAGAATT
CCTTGCTTTGAAAGAACGCTTTCGAATAGCTGAACACAGAATCTCACAGCGCTCTTCTGA
ATTAATACGATTGTGCAACAGTTCAAGCGTGTAGGAGCAGAAACAAATGGAAGTAAGGA
TGCGTTGAATAAGTTTTTCAGATAATACCCTAAAGCTGTTAAAGGAGTTAACAAGCAAAAA
ATCTCTCAAGTGCCAAGTATTTATTATCATTTCCTCATTATTGAAAAATGAAGGAAG
TCTTCAACCTGCTGTACAGATTGGCAACGGAAGAACAGGAGTTTCAATAGTCATGGGCAT
TCCACAGTGAAGAGAGAAGTTAAATCTTACCTCATAGAAACTCTTCATTCCCTTATTTG
ATACCTGTATCCTGAAGAGAAGTTGGACTGTGTTATAGTAGTCTTCATAGGAGAGACAGA
TATTGATTATGTACATGGNTGTCGTAGCCACCTGGAGAAAGAATTNNTCTAAGNAANAT
CAGTCTGGCGGNNGGGAGTCATATCACCA
    
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3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_012214 unedited GGGGGCACCCNAGCNCCTTCTANNAACNGGTAATCTCTGNACCGCGNCCGCATNCTA GGATCGAGNNNTTTTTTTTTTTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCAGGC TAAACTATTTTTAATTAACAAATTCACAGGAAAAAAGGGGTTGGTTTTCTACAAATGAT CCAGTGGGGGCTTTTTTAATATGAATCTCATTAAAAAGGGCCCAACAGCAAATTTT GAATAACTGAAAGTCAAAGGCTGAAAGGGATTGAAACTTGAATCCACCTTTCTTTTTG CAACACCTTTCTAAAATTTTCTATTCTGAAATACCCATCTTCTAACCGTTGGCCTTTGG TTTCTTTGCTTATCCCAAACCTTCATTTTTTAAAGGCAAACTCCACAGTTGTGTTTA CCAAAATATCTCCAGAATGTTCTTGTTGCCGTTATGGAACAAATAACTTTCTACATTGA CGGTTTTATCAAATTTAACCAAGATGACTCTCCAGCTATCGGTGTGATAGCCAGAAGA AATCTCTCCATGAAGTTTTCCCAGCGTTTGCCTTGGTAAACCTTCAAGGAAGAAAA TACTTCCCAGGGTGGTTACCTGGATTTAAGAANAATGGGTTAATAATCTTTATCC CGGAGTTTTGGATTTTTCTGAAGGAAGAGGGCCAACCACTGTTGAAAGGGGAGGTT TGAACCAAATCCAAATGCTTTTTGCTTATCCATGTTTGGCTTTTTTAGGTTGGCAA CTTTCCCCAAAAAATGGGCCAGACCCAACAAGGGTTTTCCCTGAAAAAGGAATTGA ATTTTCCCCCGGAAAAACCCGGGTTGAAACATTTCCCATGAACCCCTTGGGA AACCTTTAAATTTCCCTTTCTTCCAAAAAGGGGAGGGCCAAAATTTTATGGGATAAA AAAATTTTGTGAAAAAATTCCTCTTCCACCGAGGGGAAATGGCCTTTTTTTGGCAC AACTATTAAN</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_012214
Insert Size:	1960 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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_012214.1 , NP_036346.1

RefSeq Size: 2115 bp

RefSeq ORF: 1608 bp

Locus ID: 11320

UniProt ID: [Q9UM21](#)

Cytogenetics: 2q11.2

Domains: Glyco_transf_55

Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, N-Glycan biosynthesis

Gene Summary: This gene encodes a key glycosyltransferase that regulates the formation of tri- and multiantennary branching structures in the Golgi apparatus. The encoded protein, in addition to the related isoenzyme B, catalyzes the transfer of N-acetylglucosamine (GlcNAc) from UDP-GlcNAc in a beta-1,4 linkage to the Man-alpha-1,3-Man-beta-1,4-GlcNAc arm of R-Man-alpha-1,6(GlcNAc-beta-1,2-Man-alpha-1,3)Man-beta-1,4-GlcNAc-beta-1,4-GlcNAc-beta-1-Asn. The encoded protein may play a role in regulating the availability of serum glycoproteins, oncogenesis, and differentiation. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).