

Product datasheet for **RG213802**

MGAT4A (NM_012214) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT4A (NM_012214) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MGAT4A
Synonyms:	GnT-4a; GNT-IV; GNT-IVA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213802 representing NM_012214
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGCTCCGCAATGGAAGTGTAGCCACTGCTTTAGCATTATCACTTCCTTCCTTACTTTGTCTTGGT
 ATACTACATGGCAAAATGGGAAAGAAAACTGATTGCTTATCAACGAGAATTCCTTGCTTTGAAAGAACG
 TCTTCCAATAGCTGAACACAGAATCTCACAGCGCTCTTCTGAATTAATACGATTGTGCAACAGTTCAAG
 CGTGTAGGAGCAGAAACAAATGGAAGTAAGGATGCGTTGAATAAGTTTTAGATAATACCCTAAAGCTGT
 TAAAGGAGTTAAACAAGCAAAAACTCTTCAAGTGCCAAGTATTTATTATCATTGCTCATTATTGAA
 AAATGAAGGAAGTCTTCAACCTGCTGTACAGATTGGCAACGGAAGAACAGGAGTTTCAATAGTCATGGGC
 ATCCACAGTGAAGAGAGAAGTAAATCTTACCTCATAGAACTCTTCATTCCCTTATTGATAACCTGT
 ATCCTGAAGAGAAGTTGGACTGTGTTATAGTAGTCTTCATAGGAGAGACAGATATTGATTATGTACATGG
 TGTGTAGCCAACCTGGAGAAAGATTTCTAAAGAAATCAGTTCTGGCTTGGTGAAGTCATATCACCC
 CCTGAAAGCTATTATCCTGACTTGACAAACCTAAAGGAGACATTTGGAGACTCCAAAGAAAGAGTAAAGT
 GGAGAACAAGCAAAACCTAGATTACTGTTTTCTAATGATGATGCTCAAGAAAAGGGCATATATTACAT
 TCAGCTTGAAGATGATATTATTGTCAAACAAAATATTTTAATACCATAAAAAATTTTGCCTTCAACTT
 TCTTCTGAGGAATGGATGATTCTAGAGTTTTCCAGCTGGGCTTCATTGGTAAAAATGTTTCAAGCGCCGG
 ATCTTACTCTGATTGTAGAATTCATATTCATGTTTTACAAGGAGAAAACCCATTGATTGGCTCCTGGACCA
 TATTCTCTGGGTGAAAGTCTGCAACCTGAAAAAGATGCAAAACATTGTGATAGACAGAAAGCAAATCTG
 CGAATTCGCTTACAGACCTCCCTTTTCCAACATGTTGGTCTGCACTCATCACTATCAGGAAAAATCCAAA
 AACTCACGATAAAGATTATATGAAACCTACTTCTTAAAAATCCATGTAACCCACCTGGGAGGTATC
 TACTTCTTGAAGTCTACCAAGGGCATACGCTGGAGAAAACCTTACATGGGAGAGGATTTCTTCTGGGCT
 ATCACACCGATAGCTGGAGACTACATCTTGTAAATTTGATAAACCAAGTCAATGTAGAAAGTTATTGT
 TCCATAGCGCAACCAAGAACATCCTGGAGATATTCTGCTAAACACAAGTGGAAAGTTTGCCTTTTAA
 GAGTGAAGGTTTGGAAATAAGCAAGAAACCAAGACAAACGATTAGAAGATGGCTATTTTCAAGATAGGA
 AAATTTGAGAATGGTGTGCAGAAGGAATGGTGGATCCAAGTCTCAATCCCATTTTCAGCCTTTGACTTT
 CAGTTATTCAGAATTCTGCTGTTGGGCCATTCTAATGAGATTCATATTAATAAGCCACCAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG213802 representing NM_012214
 Red=Cloning site Green=Tags(s)

MRLRNGTVATALAFITSLTLNLSWYTTWQNGKEKLIAYQREFLALKERLRIAEHRISQRSSSELNTIVQQFK
 RVGAETNGSKDALNKFSDNTLKLKELTSKSLQVPSIYYHLPHLLKNEGSLQPAVQIGNGRTGVSIVMG
 IPTVKREVKSYLIETLHSLIDNLYPEEKLDCEIVVFIGETDIDYVHGVDANLEKEFSKEISSGLVEVISP
 PESYYPDLTNLKETFGDSKERVWRWKQNLDYCFLLMYAQEKGIYYIQLEDDIIVKQNYFNITKNFALQL
 SSEEWMILEFSQLGFIGKMFQAPDLTLIVEFIFMFYKEKPIDWLLDHILWVKVNCNPEKDAKHCDRQKANL
 RIRFRPSLFQHVGLHSSLGKIQLTDKDYMKPLLLKIHVNPPAEVSTSLKVYQGHTLEKTYMGEDFFWA
 ITPIAGDYILFKFDKPVNVEYLFHSGNQEHDPDILLNNTVEVLPFKSEGLEISKETKDKRLEDGYFRIG
 KFENGVAEGMVDPSLNPISAFRLSVIQNSAVWAILNEIHIKKATN

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_012214

ORF Size: 1605 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:

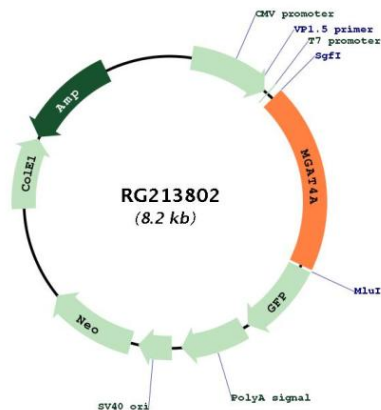
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_012214.3](#)

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]

Product images:



Circular map for RG213802