

Product datasheet for **RG222495**

MGAT2 (NM_002408) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGAT2 (NM_002408) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MGAT2
Synonyms:	CDG2A; CDGS2; GLCNACTII; GNT-II; GNT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222495 representing NM_002408
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGGTTCCGCATCTACAAACGGAAGGTGCTAATCCTGACGCTCGTGGTGGCCGCTCGCGCTTCGTCC
 TCTGGAGCAGCAATGGGCGACAAAGGAAGAACGAGGCCCTCGCCCCACCGTTGCTGGACGCCGAACCCGC
 CGGGGTGCCGGCGCCGCGGTGGGACACCCCTCTGTGGCTGTGGCATCCGCAGGGTCTCCAACGTG
 TCGGCGGCTTCCCTGGTCCCGCGGTCCCCAGCCGAGGCGGACAACCTGACGCTGCGGTACCGGTCCC
 TGGTGTACCAGCTGAACCTTGTATCAGACCCTGAGGAATGTAGATAAGGCTGGCACCTGGGCCCCCGGA
 GCTGGTGTGGTGTCCAGGTGCATAACCGGCCGAATACCTCAGACTGCTGCTGGACTCACTTCGAAAA
 GCCCAGGGAATTGACAACGTCCTCGTCATCTTTAGCCATGACTTCTGGTCGACCGAGATCAATCAGCTGA
 TCGCCGGGTGAATTTCTGTCCGGTCTGCAGGTGTTCTTTCCTTTCAGCATTAGTTGTACCCTAACGA
 GTTCCAGGTAGTGACCCTAGAGATTGTCCAGAGACCTGCCGAAGAATGCCGCTTTGAAATTGGGGTGC
 ATCAATGCTGAGTATCCCGACTCCTTCGGCCATTATAGAGAGGCCAAATTCCTCCAGACCAACATCACT
 GGTGGTGAAGCTGCATTTTGTGTGGGAAAGAGTAAAAATTCCTCGAGATTATGCTGGCCTTATACTTTT
 CCTAGAAGAGGATCACTACTTAGCCCCAGACTTTTACCATGTCTTCAAAAAGATGTGAAACTGAAGCAG
 CAAGAGTGCCTGAATGTGATGTTCTCTCCCTGGGACCTATAGTGCCAGTCGCAGTTTCTATGGCATGG
 CTGACAAGGTAGATGTGAAAACCTGGAAATCCACAGAGACAATATGGGTCTAGCCTTGACCCGGAATGC
 CTATCAGAAGCTGATCGAGTGCACAGACACTTCTGTACTTATGATGATTATAACTGGGACTGGACTCTT
 CAATACTTGACTGTATCTTGTCTTCAAAAATCTGGAAAGTCTGGTTCCTCAAATTCCTAGGATCTTTC
 ATGCTGGAGACTGTGGTATGCATCACAAGAAAACCTGTAGACCATCCACTCAGAGTGCCCAAATGAGTC
 ACTCTTAAATAATAACAACAATACATGTTTCCAGAAAACCTAACTATCAGTGAAAAGTTTACTGTGGTA
 GCCATTTCCACCTAGAAAAATGGAGGTGGGAGATATTAGGACCATGAACTCTGTAAAAGTTATA
 GAAGACTGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222495 representing NM_002408
 Red=Cloning site Green=Tags(s)

MRFRIYKRKVLILTLVVAACGFVLWSSNGRQRKNEALAPPLLDAPARGAGGRGGDHPVAVGIRRVSNV
 SAASLVPAVPQPEADNLTLYRSLVYQLNFDQTLRNVDKAGTWAPRELVLVVQVHNRPEYLRLLLDSLK
 AQGIDNVLVIFSHDFWSTEINQLIAGVNFCPVLQVFFPFSIQLYPNEFPGSDPRDCPRDLPKNAALKLGC
 INAEYPDSFGHYREAKFSQTKHHWWWKLFVWERVKILRDYAGLILFLEEDHYLAPDFYHVFKKMWLQKQ
 QECPECDVLSLGTYSASRSFYGMADKVDVKTWKSTEHNMGLALTRNAYQKLIECTDTFCTYDDYNWDWTL
 QYLTVSCLPKFWKVLVPQIPRIFHAGDCGMHHKTCRSTQSAQIESLLNNNKQYMFPELTISEKFTVY
 AISPFRKNGWGDIRDHELCKSYRRLQ

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002408

ORF Size: 1341 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).

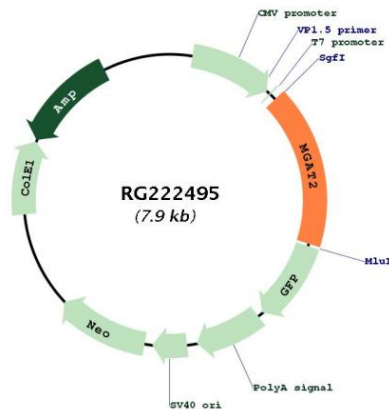
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_002408.4](#)

RefSeq Size: 2728 bp
RefSeq ORF: 1344 bp
Locus ID: 4247
UniProt ID: [Q10469](#)
Cytogenetics: 14q21.3
Domains: MGAT2
Protein Families: Transmembrane
Protein Pathways: Metabolic pathways, N-Glycan biosynthesis
Gene Summary:

The product of this gene is a Golgi enzyme catalyzing an essential step in the conversion of oligomannose to complex N-glycans. The enzyme has the typical glycosyltransferase domains: a short N-terminal cytoplasmic domain, a hydrophobic non-cleavable signal-anchor domain, and a C-terminal catalytic domain. Mutations in this gene may lead to carbohydrate-deficient glycoprotein syndrome, type II. The coding region of this gene is intronless. Transcript variants with a spliced 5' UTR may exist, but their biological validity has not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG222495