

## Product datasheet for **MG216106**

### **Mgat4a (NM\_173870) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mgat4a (NM_173870) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mgat4a
Synonyms:	9530018I07Rik; glcNAc-T-IVa; 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:**

>MG216106 representing NM\_173870  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGCTCCGAAATGGAAGTGTGGCCACTGCGCTGGTATTTGTCACGTCCTTCCTTACCCTATCCTGGT  
 ATACCACGTGGCAAAATGGGAAAGAAAACTAATTGCTTATCAACGAGAATTCCTTGCTCTAAAAGAGCG  
 TCTTCGAGTGGCCGAGCATAGGATATCTCAGCGCTCCTCGGAGCTAAACACCATTGTCCAGCAGTCCCGC  
 AGAGCTGGAGCAGAGACTAATGGAAGTAAGACAGCTCTGAGTACAATCTCAGATAATACCATAAAGCTTC  
 TAAAAGAGTTGACAAGCAAAAACTACTTCGAGTGCCAAGTATTTATTATCATTTCCTCATCTATTGCA  
 AAATGAAAGAAGCCTTCAGCCCGCCGTACAGATTGGCAGTGAAGAACGGGAGTTTCAATAGTTATGGGA  
 ATTCCTACTGTGAAGAGAGAAGTAAATCTTACCTCGTAGAAACCCTTCACTCCCTTATTGATAATCTGT  
 ATCCTGAAGAGAAGCTGGACTGTGTTATAGTCGCTTCATAGGAGAGACAGATCTTGATTATGTTACAG  
 CGTTGTTGCCAACCTGGAGAAAGATTTTCTAGAGAAATTAGTTCTGGCCTGCTGGAATAATCTCTCCT  
 CCTGAAAGCTATTACCCGACTTGACAAACCTGAAGGAGACGTTCCGAGACTCCAAGGAAAGAGTGAGAT  
 GGAGAACCAAGCAAAACCTGGATTACTGTTTTCTGATGATGTATGCTCAGGAGAAGGGCATCTACTACAT  
 TCAGCTTGAAGACGATATTATTGTCAAACAAACTATTTTAATACCATAAAGAAATTTGCACTTCAACTT  
 TCTTCGGAAGAATGGATGATTCTAGAGTTTTCCAGCTTGGCTTCATTGGAAAAATGTTCCAGGCGCCGG  
 ACCTGGCGCTGGTCGTGGAGTTCATCCTCATGTTCTATAAGGAGAAGCCATTGACTGGCTGCTGGACCA  
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 CACCTCCCTGAAGGTGTACCAAGGGCACACCCTGGAGAAGACCTACATGGGGGAAGACTTCTTTTGGGCC  
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 TCCACAGCGCAATCAAGAGCACCCAGGAGACATCCTGCTGAACACGACCGTGGATGTTCTCCCTCTAA  
 GAGCGACAGTTTGGAAATCAGCAAGAAACCAAGACAAACGATTAGAAGATGGCTATTTGAGAATAGGA  
 AAATTTGAGTATGGTGTGACAGAGGAATTGTGGATCCTGGTCTAAACCTATTTGACGCTTTGACTTT  
 CCGTTATTCAGAACTCAGCTGTTGGGCCATTCTAATGAGATTCATATTAAGTACCAGT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG216106 representing NM\_173870  
 Red=Cloning site Green=Tags(s)

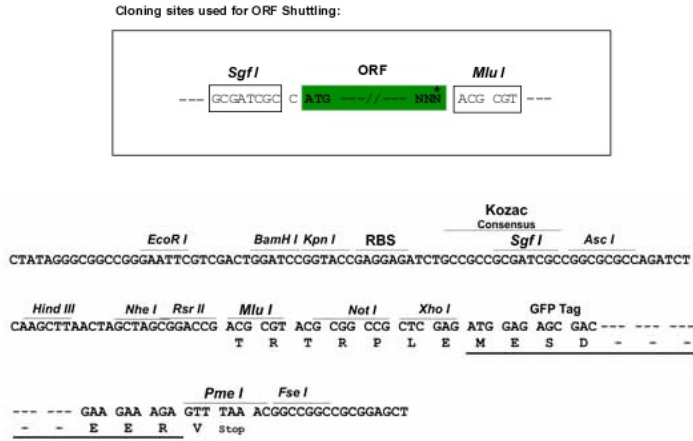
MRLRNGTVATALVFVTSFLTLWYTTWQNGKEKLIAYQREFLALKERLRVAEHRISQRSSSELNTIVQQFR  
 RAGAETNGSKTALSTISDNTIKLLKELTSKSLRVPSIYYHLPHLLQNERSLQPAVQIGSGRTGVSIVMG  
 IPTVKREVKSYLVETLHSLIDNLYPEEKLDCEVIVVFIGETDLDYVHSVVANLEKEFSREISSGLEIISP  
 PESYYPDLTNLKETFGDSKERVWRWKQNLDYCFLLMYAQEKGIYYIQLEDDIIVKQNYFNITKNFALQL  
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 RIRFRPSLFQHVGLHSSLGKIQLTDKDYMKPLLLKVHVNPPEVSTSLKVYQGHTEKTYMGEDFFWA  
 ITPTAGDYILFKFDKPVNVESYLFHSGNQEHDPDILLNNTVDVLPKSDSLEISKETKDKRLEDGYFRIG  
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**TRTRPLE** – GFP Tag – V

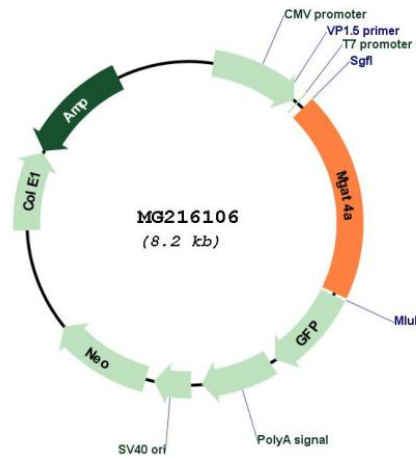
**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



<b>ACCN:</b>	NM_173870
<b>ORF Size:</b>	1605 bp
<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_173870.3</a> , <a href="#">NP_776295.1</a>
<b>RefSeq Size:</b>	7054 bp
<b>RefSeq ORF:</b>	1608 bp
<b>Locus ID:</b>	269181
<b>UniProt ID:</b>	<a href="#">Q812G0</a>
<b>Cytogenetics:</b>	1 B
<b>Gene Summary:</b>	Glycosyltransferase that participates in the transfer of N-acetylglucosamine (GlcNAc) to the core mannose residues of N-linked glycans. Catalyzes the formation of the GlcNAc $\beta$ 1-4 branch on the GlcNAc $\beta$ 1-2Man $\alpha$ 1-3 arm of the core structure of N-linked glycans. Essential for the production of tri- and tetra-antennary N-linked sugar chains. Involved in glucose transport by mediating SLC2A2/GLUT2 glycosylation, thereby controlling cell-surface expression of SLC2A2 in pancreatic beta cells.[UniProtKB/Swiss-Prot Function]