

## Product datasheet for **RR216865**

### **Mgat4a (NM\_001160155) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mgat4a (NM_001160155) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mgat4a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR216865 representing NM\_001160155  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGCTCCGAAATGGAAGTGTGGCCACTGCGCTGGTGTGTTGTCACGTCCTTCCTTACCCTGTCCTGGT  
 ATACCACATGGCAAATGGGAAAGAAAAATTAATTGCTTACCAACGAGAATTCCTCGCTTTAAAAGAACG  
 TCTTCGAGTGGCCGAACATAGGATATCTCAGCGCTCCTCTGAGCTAAACACCATTGTCCAACAGTCCGC  
 CGAGCTGGAGCGGAGACTAATGGAAGTAAGGCTGGTCTGAGTACGTTCTCAGATAATACCATAAAGCTTC  
 TAAAAGAGTTGACAAGCAAAAACTACTTCAAGTGCCAAGTATTTATTATCATTGCTCATCTATTGCA  
 AAATGAAAGAAGCCTTCAGCCCGCCGTACAGATTGGCAGTGAAGAACGGGAGTTTCAATAGTCATGGGG  
 ATTCTACTGTGAAGAGAGAAGTAAATCTTACCTCATAGAGACCCTTCACTCCCTTATTGATAATCTGT  
 ATCCTGAAGAGAAGCTGGACTGTGTTATAGTTGTCTTCATAGGAGAGACAGATCTTGATTATGTTACAG  
 CGTTGTTGCCAACCTGGAGAAAGATTTTCTAGAGAAATTAGTTCGGCTTGCTAGAAGTAACTCTCTCT  
 CCTGAAAGCTATTACCCGACTTAACAAACCTGAAGGAGACGTTCCGAGACTCCAAGGAAAGAGTAAAGT  
 GGAGAACGAAGCAAAACCTGGACTATTGTTTTCTGATGATGATGCTCAGGAGAAGGGCATTACTACAT  
 TCAGCTTGAAGATGATATTATTGTCAAGCAAACTATTTTAATACCATAAAAAATTTTGCCTTCAACTT  
 TCTTCTGAAGAATGGATGATTCTAGAGTTTTCCAGCTGGGCTTCATTGGGAAGATGTTCCAGGCGCCGG  
 ACCTAGCTCTGGTTGTGGAGTTCATTCTCATGTTCTATAAGGAGAAGCCATTGACTGGCTCTTGGACCA  
 CATTCTCTGGGTGAAGTCTGCAACCCGAAAAAGATGCCAAACACTGCGACAGACAGAAGGCAACCTA  
 CGAATCCGCTCCGACCCCTCCCTCTCCAGCACGTGGGTCTACACTCATCTCTGTCGGGGAAAAATCAGA  
 AACTTACGGATAAAGATTACATGAAACCATTTGCTTCTCAAGATCCACGTGAACCCGCCTGCAGAGTCTC  
 CACTTCCCTGAAGGTGTACCAAGGGCACACACTGGAGAAGACCTACATGGGGGAAGACTTCTTTTGGGCC  
 ATCACCCACAGCTGGAGACTACATCTTGTAAATTTGATAAACCGGTCAATGTGGAGAGTTATTGTT  
 TCCACAGCGCAATCAAGAGCACCCAGGGGACATCCTGCTGAACACGACCGTGGAGGTTCTGCCTTTAA  
 GAGCGACAGTTTGGAGATCAGCAAGAAACCAAGACAAACGATTAGAAGATGGCTATTTAGAATAGGG  
 AAATTTGAGTACGGAGTTGCAGAGGGAATTGTGGATCCTGGACTGAACCCATCTCAGCCTTTCGACTGT  
 CGGTTATTCAGAACTCTGCTGTCTGGGCCATTCTCAATGAGATTCATATTAAGAAAGTACCAGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR216865 representing NM\_001160155  
 Red=Cloning site Green=Tags(s)

MRLRNGTVATALVFVTSFLTLWYTTWQNGKEKLIAYQREFLALKERLRVAEHRISQRSSSELNTIVQQFR  
 RAGAETNGSKAGLSTFSDNITIKLLKELTSKKSQVPSIYYHLPHLLQNERSLQPAVQIGSGRTGVSIVMG  
 IPTVKREVKSYL IETLHSLIDNLYPEEKLDLDCVIVVFIGETDLDYVHSVAVANLEKEFSREISSGLLEVIS  
 PESYYPDLTNLKEITFGDSKERVWRKQNLDYCFLLMYAQEKGIYYIQLEDDIIVKQNYFNTIKNFALQL  
 SSEEWMILEFSQLGFIGKMFQAPDLALVVEFILMFYKEKPIDWLLDHILWVKVNCPEKDAKHCDRQKANL  
 RIRFRPSLFQHVGLHSSLGKIQLTDKDYMKPLLLKIHVNPPAEVSTSLKVYQGHTEKTYMGEDFFWA  
 IPTAGDYILFKFDKPVNVEYSLFHSGNQEHDPDILLNTTVEVLPKSDSLEISKETKDKRLEDGYFRIG  
 KFEYGVAEIVDPGLNPISAFRLSVIQNSAVWAILNEIHIKKVTS

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001160155

**ORF Size:** 1605 bp

**OTI Disclaimer:** 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\\_001160155.1](#), [NP\\_001153627.1](#)

**RefSeq Size:** 7208 bp

**RefSeq ORF:** 1608 bp

**Locus ID:** 367252

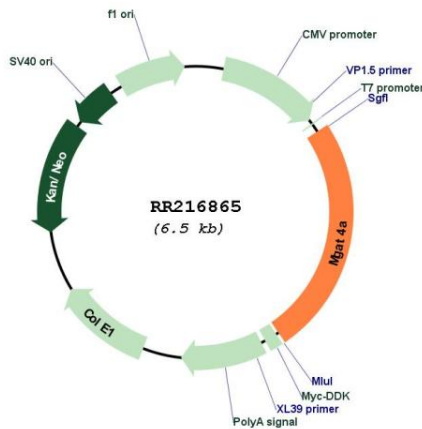
**UniProt ID:** [Q5M854](#)

**Cytogenetics:** 9q21

**MW:** 61.5 kDa

**Gene Summary:** 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 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RR216865