

Product datasheet for **MR230386**

Mgat4a (NM_001290801) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mgat4a (NM_001290801) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mgat4a
Synonyms:	9530018I07Rik; glcNAc-T-IVa; GnT-IVa
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230386 representing NM_001290801
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGCTCCGAAATGGAAGTGTGGCCACTGCGCTGGTATTTGTCACGTCCTTCCTTACCCTATCCTGGT
 ATACCACGTGGCAAAATGGGAAAGAAAACTAATTGCTTATCAACGAGAATTCCTTGCTCTAAAAGAGCG
 TCTTCGAGTGGCCGAGCATAGGATATCTCAGCGCTCCTCGGAGCTAAACACCATTGTCCAGCAGTCCGC
 AGAGCTGGAGCAGAGACTAATGGAAATAATACCATAAAGCTTCTAAAAGAGTTGACAAGCAAAAAATCAC
 TTCGAGTGCCAAGTATTTATTATCATTTGCCTCATCTATTGCAAATGAAAGAAGCCTTCAGCCCAGCGT
 ACAGATTGGCAGTGAAGAACGGGAGTTCAATAGTTATGGGAATTCCTACTGTGAAGAGAGAAGTTAA
 TCTTACCTCGTAGAAACCCTTCACTCCCTATTGATAATCTGTATCCTGAAGAGAAGCTGGACTGTGTTA
 TAGTCGTCTTCATAGGAGAGACAGATCTTGATTATGTTACAGCGTTGTTGCCAACCTGGAGAAAGAATT
 TTCTAGAGAAATTAGTTCTGGCCTGCTGGAATAATCTCTCCTCCTGAAAGCTATTACCCGACTTGACA
 AACCTGAAGGAGACGTTCCGAGACTCCAAGGAAAGAGTGAGATGGAGAACCAAGCAAAACCTGGATTACT
 GTTTTCTGATGATGATGCTCAGGAGAAGGGCATCTACTACATTAGCTTGAAGACGATATTATTGTCAA
 ACAAACCTATTTAATACCATAAAGAAATTTGCACTTCAACTTTCTTCGGAAGAATGGATGATTCTAGAG
 TTTTCCAGCTTGGCTTCATTGGAAAAATGTTCCAGGCGCCGACCTGGCGCTGGTCTGGAGTTTCATCC
 TCATGTTCTATAAGGAGAAGCCATTGACTGGCTGCTGGACCACATTCTCTGGGTGAAGGTCTGCAACCC
 CGAAAAAGATGCTAAACTGCGACAGACAGAAGGCAACCTACGAATCCGCTCCGACCTCCCTCTTC
 CAGCACGTGGCCCTACTCGTCTGTGCGGGAAGATTGAGAACTCACGGATAAAGATTACATGAAGC
 CATTGCTTCTCAAGTCCACGTGAACCCGCTGCAGAGGTCTCCACCTCCCTGAAGGTGTACCAAGGGCA
 CACCCTGGAGAAGACCTACATGGGGGAAGACTTCTTTTGGCCATCACCCACGCTGGAGACTACATC
 TTGTTTAAATTTGACAAACCGGTCAACGTGGAGAGTTATTTGTTCCACAGCGGAATCAAGAGCACCCAG
 GAGACATCCTGCTGAACACGACCGTGGATGTTCTCCCTCTAAGAGCGACAGTTTGGAAATCAGCAAAGA
 AACCAAAGACAAACGATTAGAAGATGGCTATTTGAGAATAGGAAAATTTGAGTATGGTGTTCAGAGGGA
 ATTGTGGATCCTGGTCTAAACCCTATTTACGCCTTTCGACTTCCGTTATTGAGAACTCAGCTGTTGGG
 CCATTCTAATGAGATTCATATAAAAAGTCACCAGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230386 representing NM_001290801
 Red=Cloning site Green=Tags(s)

MRLRNGTVATALVFVTSFLTLWYTTWQNGKEKLIAYQREFLALKERLRVAEHRISQRSELNTIVQQFR
 RAGAEETNGNNTIKLLKELTSKSLRVPSEIYYHLPHLLQNERSLQPAVQIGSGRTGVSIVMGIPTVKREVK
 SYLVETLHSLIDNLYPEEKLDIVVFVIGETDLDYVHVSVANLEKEFSREISSGLLEIISPPESSYPDLT
 NLKETFGDSKERVRWRKQNLDYCFLLMYAQEKIYYIQLEDDIIVKQNYFNTIKNFALQLSSEEWMI
 LEFSQLGFIGKMFQAPDLALVVEFILMFYKEKPIDWLLDHILWVKVCNPEKDAKHCDRQKANLRIRFRPSLF
 QHVGLHSSLGSKIQKLTDKDYMKPLLLKVHVNPPAEVSTSLKVYQGHLEKTYMGEDFFWAITPTAGDYI
 LFKFDKPVNVESYLFHSGNQEHPGDILLNTTVDVPLKSDSLEISKETDKRLEDGYFRIGKFEYGAEG
 IVDPLNPIISAFRLSVIQNSAVWAILNEIHIKKVTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

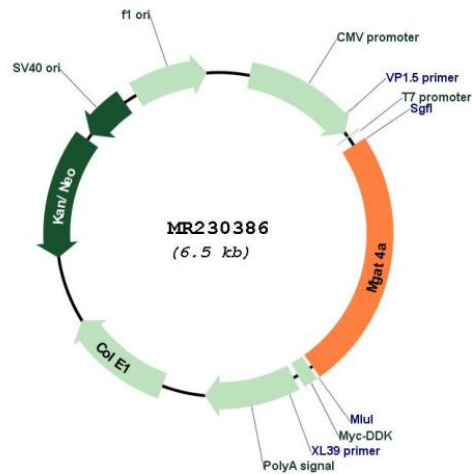
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001290801
ORF Size:	1578 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:	<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_001290801.1 , NP_001277730.1
RefSeq Size:	7172 bp
RefSeq ORF:	1581 bp
Locus ID:	269181
UniProt ID:	Q812G0
Cytogenetics:	1 B
MW:	61 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 β 1-4 branch on the GlcNAc β 1-2Man α 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]