

Product datasheet for **RG203765**

MAT1A (NM_000429) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MAT1A (NM_000429) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MAT1A
Synonyms: MAT; MATA1; SAMS; SAMS1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG203765 representing NM_000429
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAATGGACCGGTGGATGGCTTGTGTGACCACTCTCTAAGTGAAGGAGTCTTCATGTTACATCGGAGT
 CTGTGGGAGAGGGACACCCGGATAAGATCTGTGACCAGATCAGTGATGCAGTGTGGATGCCCATCTCAA
 GCAAGACCCCAATGCCAAGGTGGCTGTGAGACAGTGTGCAAGACCGGCATGGTGTCTGTGTGGTGAG
 ATCACCTCAATGGCCATGGTGGACTACCAGCGGTGGTGAGGGACACCATCAAGCACATCGGCTACGATG
 ACTCAGCCAAGGGCTTTGACTTCAAGACTTGCAACGTGCTGGTGGCTTTGGAGCAGCAATCCCAGATAT
 TGCCCAAGTGCCTCATCTGGACAGAAATGAGGAGGATGTGGGGCAGGAGATCAGGGTTTGTATGTTCCGGC
 TATGCCACCGACGAGACAGAGGAGTGCATGCCCTCACCATCATCCTTGCTCACAAGCTCAACGCCCGGA
 TGGCAGACCTCAGGCGCTCCGGCTCCTCCCCTGGCTGCGGCCTGACTCTAAGACTCAGGTGACAGTTCA
 GTACATGCAGGACAATGGCGCAGTCATCCCTGTGCGCATCCACACCATCGTCATCTCTGTGCAGCACAAC
 GAAGACATCAGCTGGAGGAGATGCGCAGGGCCCTGAAGGAGCAAGTCATCAGGGCCGTGGTGCCGGCCA
 AGTACCTGGACGAAGACACCGTCTACCACCTGCAGCCAGTGGCGGTTTGTTCATCGGAGTCCCCAGGG
 GGATGCGGGTGTCACTGGCCGTAAGATTATTGTGGACACCTATGGCGGCTGGGGGCTCATGGTGGTGGG
 GCCTTCTCTGGGAAGGACTACACCAAGGTGACCGCTCAGCCGCTTATGCTGCCGCTGGGTGGCCAGT
 CTCTGGTGAAAGCAGGGCTCTGCCGAGAGTGCTTGTCCAGTTTCTATGCCATTGGTGTGGCCGAGCC
 GCTGTCCATTTCCATCTTACCTACGGAACCTCTCAGAAGACAGAGCGAGAGCTGCTGGATGTGGTGCAT
 AAGAACTTCGACCTCCGGCCGGGCGTCATTGTCCAGGGATTTGGACTTGAAGAAGCCCATCTACCAGAAGA
 CAGCATGCTACGGCCATTTCCGAAGAAGCGAGTTCCTATGGGAGGTTCCAGGAAGCTTGTATTT

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203765 representing NM_000429
Red=Cloning site Green=Tags(s)

MNGPVDGLCDHSLSEGVFMFTSESVGEGHPDKICDQISDAVLDAHLKQDPNAKVACETVCKTGMVLLCGE
 ITSMAMVDYQRVVVRTIKHIGYDDSAKGFDFKTCNVLVALEQQSPDIAQCVHLDRNEEDVGAGDQGLMFG
 YATDETEECMPLTIILAHKLNARMADLRRSGLLPWLRPDSKTQVTVQYMQDNGAVIPVRIHTIVISVQHN
 EDITLEEMRRALKEQVIRAVVPAKYLDLDETVYHLQPSGRFVIGGPOGDAGVTGRKIIVDTYGGWGAHGGG
 AFSGKDYTKVDRSAAYAARWVAKSLVKAGLCRRVLVQVSYAIGVAEPLSISIFTYGT SQKTERELLDVVH
 KNFDLRPGVIVRDLDLKKPIYQKTACYGHFGRSEFPWEVPRKLVF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000429

ORF Size: 1185 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_000429.2](#), [NP_000420.1](#)

RefSeq Size: 3419 bp

RefSeq ORF: 1188 bp

Locus ID: 4143

UniProt ID: [Q00266](#)

Cytogenetics: 10q22.3

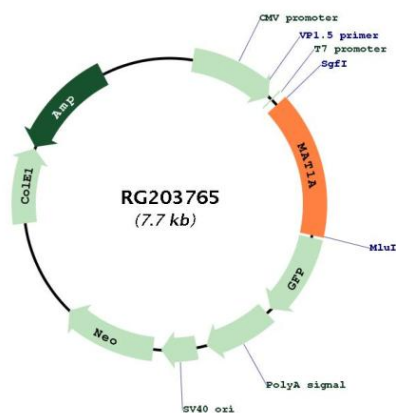
Domains: S-AdoMet_synt

Protein Families: Druggable Genome

Protein Pathways: Cysteine and methionine metabolism, Metabolic pathways, Selenoamino acid metabolism

Gene Summary: This gene catalyzes a two-step reaction that involves the transfer of the adenosyl moiety of ATP to methionine to form S-adenosylmethionine and triphosphosphate, which is subsequently cleaved to PPi and Pi. S-adenosylmethionine is the source of methyl groups for most biological methylations. The encoded protein is found as a homotetramer (MAT I) or a homodimer (MAT III) whereas a third form, MAT II (gamma), is encoded by the MAT2A gene. Mutations in this gene are associated with methionine adenosyltransferase deficiency. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG203765