

## Product datasheet for RC203765

### MAT1A (NM\_000429) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MAT1A (NM_000429) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAT1A
Synonyms:	MAT; MATA1; SAMS; SAMS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203765 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAATGGACCGGTGGATGGCTTGTGTGACCACTCTCTAAGTGAAGGAGTCTTCATGTTACATCGGAGT  
CTGTGGGAGAGGGACACCCGGATAAGATCTGTGACCAGATCAGTGATGCAGTGTGGATGCCCATCTCAA  
GCAAGACCCCAATGCCAAGGTGGCTGTGAGACAGTGTGCAAGACCGGCATGGTGTCTGTGTGGTGAG  
ATCACCTCAATGGCCATGGTGGACTACCAGCGGTGGTGAGGGACACCATCAAGCACATCGGCTACGATG  
ACTCAGCCAAGGGCTTTGACTTCAAGACTTGCAACGTGCTGGTGGCTTTGGAGCAGCAATCCCAGATAT  
TGCCAGTGCCTCATCTGGACAGAAATGAGGAGGATGTGGGGCAGGAGATCAGGGTTTGTATGTTCCGGC  
TATGCCACCGACGAGACAGAGGAGTGCATGCCCTCACCATCATCCTTGCTCACAAGCTCAACGCCCGGA  
TGGCAGACCTCAGGCGCTCCGGCTCCTCCCCTGGCTGCGGCCTGACTCTAAGACTCAGGTGACAGTTCA  
GTACATGCAGGACAATGGCGCAGTCACTCCTGTGCGCATCCACACCATCGTCATCTCTGTGCAGCACAAC  
GAAGACATCACGCTGGAGGAGATGCGCAGGGCCCTGAAGGAGCAAGTCACTAGGGCCGTGGTGCCGGCCA  
AGTACCTGGACGAAGACACCGTCTACCACCTGCAGCCAGTGGCGGTTTGTCACTCGGAGTCCCCAGGG  
GGATGCGGGTGTCACTGGCCGTAAGATTATTGTGGACACCTATGGCGGCTGGGGGCTCATGGTGGTGGG  
GCCTTCTCTGGGAAGGACTACACCAAGGTGGACCGCTCAGCCGCTTATGCTGCCGCTGGGTGCCAAGT  
CTCTGGTGAAAGCAGGGCTCTGCCGAGAGTGCTTGTCCAGTTTCTATGCCATTGGTGTGGCCGAGCC  
GCTGTCCATTTCCATCTTACCTACGGAACCTCTCAGAAGACAGAGCGAGAGCTGCTGGATGTGGTGCAT  
AAGAACTTCGACCTCCGGCCGGCGTATTGTCCAGGGATTTGGACTTGAAGAAGCCCATCTACCAGAAGA  
CAGCATGCTACGGCCATTTCCGAAGAAGCGAGTTCCTATGGGAGGTTCCAGGAAGCTTGTATTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203765 protein sequence  
Red=Cloning site Green=Tags(s)

MNGPVDGLCDHSLSEGVMFTSESVGEGHPDKICDQISDAVLDAHLKQDPNAKVACETVCKTGMVLLCGE  
 ITSMAMVDYQRVVRDTIKHIGYDDSAKGFDFKTCNVLVALEQQSPDIAQCVHLDRNEEDVGAGDQGLMFG  
 YATDETEECMPLTII LAHKL NARMADLRSGLLPWL RPD SKTQVT VQYMQDNGAVIPVRIHTIVISVQHN  
 EDITLEEMRRALKEQVIRAVVPAKYLD EDTVYHLQPSGRFVIGGPOGDAGVTGRKIIVDTYGGWGAHGGG  
 AFSGKDYTKVDRSAAYAARWVAKSLVKAGLCRRV LVQVSYAIGVAEPLSISIFTYGT SQKTERELLDVVH  
 KNFDLRPGVIVRDLDLKKPIYQKTACYGHFGRSEFPWEVPRKLVF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6196\\_c07.zip](https://cdn.origene.com/chromatograms/mk6196_c07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000429

**ORF Size:** 1185 bp

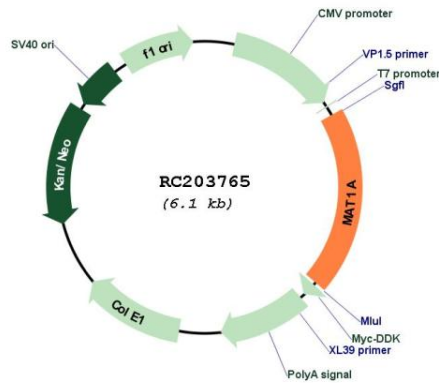
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

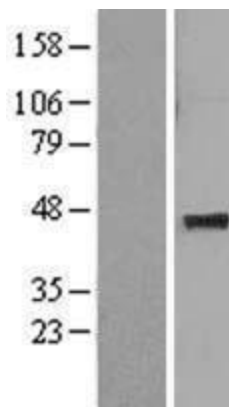
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>	<u><a href="#">NM_000429.3</a></u>
<b>RefSeq Size:</b>	3419 bp
<b>RefSeq ORF:</b>	1188 bp
<b>Locus ID:</b>	4143
<b>UniProt ID:</b>	<u><a href="#">Q00266</a></u>
<b>Cytogenetics:</b>	10q22.3
<b>Domains:</b>	S-AdoMet_synt
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Cysteine and methionine metabolism, Metabolic pathways, Selenoamino acid metabolism
<b>MW:</b>	43.6 kDa
<b>Gene Summary:</b>	<p>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]</p>

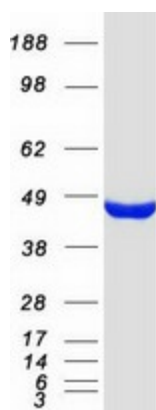
**Product images:**



Circular map for RC203765



Western blot validation of overexpression lysate (Cat# [LY400152]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203765 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAT1A protein (Cat# [TP303765]). The protein was produced from HEK293T cells transfected with MAT1A cDNA clone (Cat# RC203765) using MegaTran 2.0 (Cat# [TT210002]).