

Product datasheet for RC223205

MMAA (NM_172250) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | MMAA (NM_172250) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | MMAA |
| Synonyms: | cblA |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC223205 representing NM_172250 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCATGCTGCTACCACATCCTCACCAGCATTTCCTAAAAGGCCTTTAAGAGCACCTTTCCGATGTT
ACCACTTCATCTTTCACTCAAGTACTCATCTCGGATCAGGAATCCCATGTGCTCAGCCGTTAATTCTCT
TGGACTCCATTGTACAAAGTGGATGCTGCTGTCAGATGGCTTAAAGAGAAAATTATGTGTACAAACAACC
TTAAAGGACCACACAGAAGGACTTTCTGATAAAGAGCAAAGATTTGTGGATAAACTTTATACTGGTTTAA
TCCAAGGGCAAAGGCCCTGTTTAGCAGAGGCCATAACTCTGTAGAATCAACTCACAGCAGGAAAAAGGA
GTTAGCCAGGTGCTTTCAGAAAAGTATTACTTTACCACAGAGAACAAGAAATCAAATAAAGGAAAA
CCACTAGCATTTTCGAGTAGGATTGTCTGGGCCCTGGTCTGGAAAATCAACATTTATAGAATATTTTG
GAAAAATGCTTACTGAGAGAGGGCACAAATATCTGTGCTAGCTGTGGACCTTCTTCTGTACTAGTGG
TGGATCACTCTTAGGTGATAAAACCCGAATGACTGAGTTATCAAGAGATATGAATGCATACATCAGGCCA
TCTCCTACTAGAGGAACCTTAGGAGCGGTGACAAGGACCACAAATGAAGCTATTCTGTTGTGGAAGGAG
CGGGATATGACATAATTCTTATTGAAACCGTTGGTGTGGGTCAGTCGGAGTTTGTGTTGCTGACATGGT
TGACATGTTTGTCTTACTACTGCCACCAGCAGGAGGAGATGAGCTGCAGGGTATCAAAGGGGTATAATC
GAGATGGCAGATCTGGTAGCTGTAACATAAATCTGATGGAGACTTGATTGTGCCAGCTCGAAGGATACAAG
CGGAATATGTGAGTGCACTGAAATTAACCGCAAACGTTCAAGTCTGGAACCAAGGTAATTCTGTAT
TTCTGCCCGAAGTGGAGAGGGGATCTCTGAAATGTGGGATAAAATGAAAGATTTCCAGGACCTAATGCTT
GCCAGTGGGAGCTGACTGCCAAACGACGGAAGCAACAGAAAAGTTTGGATGTGGAATCTCATTAGGAAA
GTGTGTTAGAGCATTTCCAGGACCCACCCACAGTCCGGGAACAGATTCCACTTCTGGAACAAAAGTTCT
CATTGGGGCCCTGTCCCGAGACTAGCAGCAGACTTCTTGTTAAAAGCTTTTAAAAGCAGAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC223205 representing NM_172250
Red=Cloning site Green=Tags(s)

MPMLLPHPHQHFLKGLLRAPFRCYHFIFHSSTHLGSGIPCAQPFNSLGLHCTKWMLLSDGLKRKLCVQTT
 LKDHT EGLSDKEQRFVDKLYTGLIQGQRACLAEAITLVESTHSRKKELAQVLLQKVLLYHREQEQSNKGGK
 PLAFRVGLSGPPGAGKSTFIEYFGKMLTERGHKLSVLAVDPSSCTSGGSLLDGKTRMTEL SRDMNAYIRP
 SPTRGTLGGVTRTTNEAILLCEGAGYDIIETVGVGQSEFAVADMVDMFVLLPPAGGDELQGIKRGII
 EMADLVAVTKSDGLIVPARRIQAEYVSALKLLRKR SQVWPKVIRI SARSGEGISEMWDKMKDFQDLML
 ASGELTAKRRKQKQVMMWNLIQESVLEHFRTHPTVREQIPLLEQKVLIGALSPGLAADFLKAFKSRD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2598_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_172250

ORF Size: 1254 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_172250.3](#)

RefSeq Size: 1473 bp

RefSeq ORF: 1257 bp

Locus ID: 166785

UniProt ID: [Q8IVH4](#)

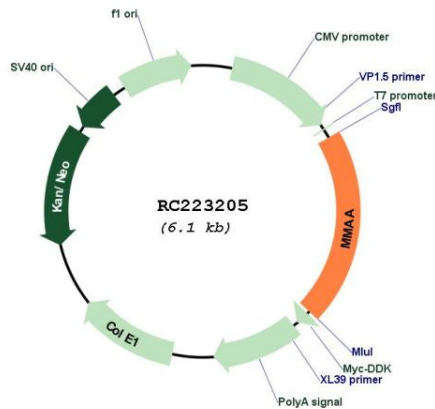
Cytogenetics: 4q31.21

Protein Families: Druggable Genome

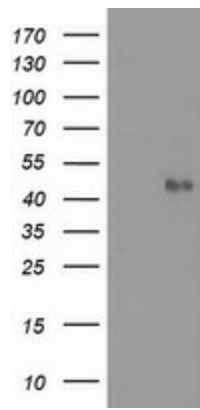
MW: 39 kDa

Gene Summary: The protein encoded by this gene is involved in the translocation of cobalamin into the mitochondrion, where it is used in the final steps of adenosylcobalamin synthesis. Adenosylcobalamin is a coenzyme required for the activity of methylmalonyl-CoA mutase. Defects in this gene are a cause of methylmalonic aciduria. [provided by RefSeq, Jul 2008]

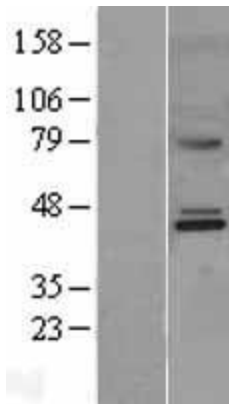
Product images:



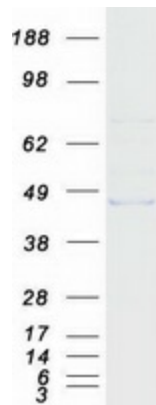
Circular map for RC223205



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MMAA (Cat# RC223205, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MMAA (Cat# [TA502277]). Positive lysates [LY403540] (100ug) and [LC403540] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403540]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223205 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MMAA protein (Cat# [TP323205]). The protein was produced from HEK293T cells transfected with MMAA cDNA clone (Cat# RC223205) using MegaTran 2.0 (Cat# [TT210002]).