

Product datasheet for RC217033

MOCS1 (NM_001075098) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MOCS1 (NM_001075098) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MOCS1
Synonyms:	MIG11; MOCOD; MOCS1A; MOCS1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217033 representing NM_001075098 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCGGGCCACTGTCCGGATGCTGCGGCGGCTTCTGAGGTCCAGCGCCCGGAGCTGCAGCTCAG
GGGCTCCGGTGACCCAGCCCTGCCCGGGGAGTCCGCGGAGCTGCCTCGGAGGAGGTGCCAGGCGGAG
GCAGTTCTGCGGGAGCATGCGGCCCTTCTCCGCTTCTCACAGACAGCTTCGGCCGGCAGCACAGC
TACCTGCGGATCTCCCTCACAGAGAAGTCAACCTCAGATGTCAGTACTGCATGCCCGAGGAGGGGTCC
CGCTGACCCCAAAGCCAACCTGCTGACCACAGAGGAGATCCTGACCCTCGCCCGGCTCTTGTGAAGGA
AGGCATCGACAAGATCCGGCTCACAGGTGGAGAGCCGCTTATCCGCGCGACGTGGTGGACATTGTGGCC
CAGCTCCAGCGGCTGGAAGGGCTGAGAACCATAGGTGTTACCACCAATGGCATCAACCTGGCCCGGCTAC
TGCCCCAGCTTCAGAAGGCTGGTCTCAGTGCCATCAACATCAGCCTGGACACCCTGGTGCCTGCCAAGTT
TGAGTTCATTGTCCGAGGAAAGGCTTCCACAAGGTCAATGGAGGATCCACAAGGCCATCGAGCTGGGC
TACAACCTGTGAAGGTGAAGTGTGGTGTGCGGAGGCTTAAACGAGGATGAACCTGGACTTTGCGG
CCTTGACTGAGGGCTCCCTGGATGTGCGCTTCATAGAGTATATGCCCTTTGATGGCAACAAGTGAA
CTTCAAGAAGATGGTCAGCTATAAGGAGATGCTAGACACTGTCCGGCAGCAGTGGCCAGAGCTGGAGAAG
GTGCCAGAGGAGGAATCCAGCACAGCCAAGGCCTTTAAATCCCTGGCTTCCAAGGCCAGATCAGCTTCA
TCACATCCATGTCTGAGCATTTCTGTGGGACCTGCAACCGCTGCGAATCACAGCTGATGGGAACCTCAA
GGTCTGCCTCTTTGAAACTCTGAGGTATCCCTGCGGGATCACCTGCGAGCTGGGCGCTCTGAGCAGGAG
CTGCTGAGAATCATTGGGGCTGCTGTGGCAGGAAGAAGCGGCAGCATGCAGGCATGTTCAAGTATTTCC
AGATGAAGAACCGGCCATGATCCTCATCGGTGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217033 representing NM_001075098
Red=Cloning site Green=Tags(s)

MAARPLSRMLRRLRLSSARSCSSGAPVTQPCPGESARAASEEVSRRRQFLREHAAPFSAFLTDSFGRQHS
 YLRISLTEKCNLRQCYCMPEEGVPLTPKANLLTTEEILTLARLFVKEGIDKIRLTGGEPLIRPDVVDIVA
 QLQRLEGLRTIGVTTNGINLARLLPQLQKAGLSAINISLDTLVPKFFEVVRRKGFHKVMIEGIIHKAIELG
 YNPVKVNCVVMRGLNEDELLDFAALTEGLPLDVRFEIEMPFDGNKWNFKKMVSYKEMLDTVRQQWPELEK
 VP EEESSTAKAFKIPGFQGI SFITSMSEHFCGTCNRLRITADGNLKVCLFGNSEVSLRDHLRAGASEQE
 LLRIIGA AVGRKKRQHAGMFSISQMKNRPMILIGG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1283_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001075098

ORF Size: 1155 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_001075098.4](#)

RefSeq Size: 3027 bp

RefSeq ORF: 1158 bp

Locus ID: 4337

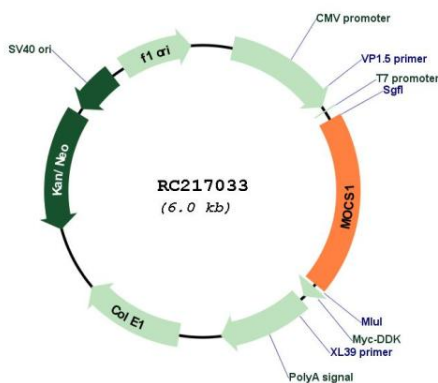
UniProt ID: [Q9NZB8](#)

Cytogenetics: 6p21.2

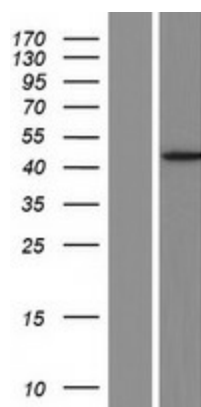
MW: 42.9 kDa

Gene Summary: Molybdenum cofactor biosynthesis is a conserved pathway leading to the biological activation of molybdenum. The protein encoded by this gene is involved in this pathway. This gene was originally thought to produce a bicistronic mRNA with the potential to produce two proteins (MOCS1A and MOCS1B) from adjacent open reading frames. However, only the first open reading frame (MOCS1A) has been found to encode a protein from the putative bicistronic mRNA, whereas additional splice variants are likely to produce a fusion between the two open reading frames. This gene is defective in patients with molybdenum cofactor deficiency, type A. A related pseudogene has been identified on chromosome 16. [provided by RefSeq, Nov 2017]

Product images:



Circular map for RC217033



Western blot validation of overexpression lysate (Cat# [LY421350]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217033 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).