

## Product datasheet for **RG224351**

### MOCS1 (NM\_005943) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MOCS1 (NM\_005943) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MOCS1  
**Synonyms:** MIG11; MOCOD; MOCS1A; MOCS1B  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG224351 representing NM\_005943  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGAAGAGTTGGAAGCTCCGCACAGATGTCAGAGTAAGGGAGGGGCGAGCGGTTCTCCTTGTGCCT  
CTTCCCAGCCCGGTAGCAGGGGCCCATGCTTCTCCTCGGCTGTCTCGCAGGAGGTGTCCAGGCGGAG  
GCAGTTCTGCGGGAGCATGCGGCCCTTCTCCGCTTCTCACAGACAGCTTCGGCCGGCAGCACAGC  
TACCTGCGGATCTCCCTCACAGAGAAGTCAACCTCAGATGTCAGTACTGCATGCCCGAGGAGGGGTCC  
CGCTGACCCCAAAGCCAACCTGCTGACCACAGAGGAGATCCTGACCCTCGCCCGCTCTTTGTGAAGGA  
AGGCATCGACAAGATCCGGCTCACAGGTGAGAGCCGCTTATCCGGCCGGACGTGGTGGACATTGTGCC  
CAGCTCCAGCGGCTGGAAGGGCTGAGAACCATAGGTGTTACCACCAATGGCATCAACCTGGCCCGCTAC  
TGCCCCAGCTTCAGAAGGCTGGTCTCAGTGCCATCAACATCAGCCTGGACACCCTGGTGCCTGCCAAGTT  
TGAGTTCATTGTCCGAGGAAAGGCTTCCACAAGGTCAAGGAGGATCCACAAGGCCATCGAGCTGGGC  
TACAACCCTGTGAAGGTGAAGTGTGGTGTGCGAGGCTTAAACGAGGATGAACCTGGACTTTGCGG  
CCTTGACTGAGGGCTCCCTGGATGTGCGCTTCATAGAGTATATGCCCTTTGATGGCAACAAGTGAA  
CTTCAAGAAGATGGTCAGCTATAAGGAGATGCTAGACACTGTCCGGCAGCAGTGGCCAGAGCTGGAGAAG  
GTGCCAGAGGAGGAATCCAGCACAGCCAAGGCCTTTAAATCCCTGGCTTCCAAGGCCAGATCAGCTTCA  
TCACATCCATGTCTGAGCATTTCTGTGGGACCTGCAACCGCTGCGAATCACAGCTGATGGGAACCTCAA  
GGTCTGCCTCTTTGAAACTCTGAGGTATCCCTGCGGGATCACCTGCGAGCTGGGCTCTGAGCAGGAG  
CTGCTGAGAATCATTGGGGCTGCTGTGGCAGGAAGAAGCGGCAGCATGCAGGCATGTTCAAGTATTTCC  
AGATGAAGAACCAGGCCATGATCCTCATCGGTGGG

**ACCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG224351 representing NM\_005943  
 Red=Cloning site Green=Tags(s)

MWKSWLRTDVRVREGAGGSPCASSQPGSRGPCFLPGLSSQEVSRRRQFLREHAAPFSAFLTDSFGRQHS  
 YLRISLTEKCNLRCQYCMPEEGVPLTPKANLLTTEEILTLARLFVKEGIDKIRLTGGEPLIRPDVVDIVA  
 QLQRLEGLRTIGVTTNGINLARLLPQLQKAGLSAINISLDTLVPKFEFIVRRKGFHKVMEGIHKAIELG  
 YNPVKVNCVVMRGLNEDELLDFAALTEGLPLDVRFIEYMPFDGNKWNFKKMVSYKEMLDTVRQQWPELEK  
 VPEESSTAKAFKIPGFQGISFITSMEHF CGTCNRLRITADGNLKVCLFGNSEVSLRDHLRAGASEQE  
 LLRIIGA AVGRKKRQHAGMFSISQMKNRPMILIGG

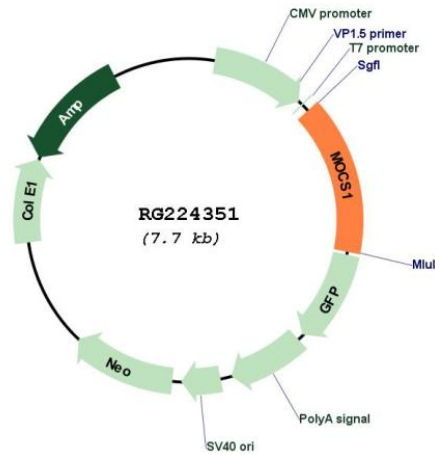
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_005943

<b>ORF Size:</b>	1155 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>	<a href="#">NM_005943.5</a> , <a href="#">NP_005934.2</a>
<b>RefSeq Size:</b>	4163 bp
<b>RefSeq ORF:</b>	1158 bp
<b>Locus ID:</b>	4337
<b>UniProt ID:</b>	<a href="#">Q9NZB8</a>
<b>Cytogenetics:</b>	6p21.2
<b>Gene Summary:</b>	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]