

## Product datasheet for **RC203674**

### MOSC1 (MARC1) (NM\_022746) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MOSC1 (MARC1) (NM_022746) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MOSC1
Synonyms:	MARC1; MOSC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203674 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCGCCGCCGCTCCTCCGCGCTGGCGCGCTTTGTCCTCCTCGCGCAATCCCGGCCCGGGTGGCTCG  
GGGTTGCCGCGCTGGGCCTGACCGCGTGGCGCTGGGGCTGTCGCTGGCGCCGCGCATGGCCACGCG  
GCGCCGGCGGCTGCTGCAGCAGGTGGGCACAGTGGCGCAGCTCTGGATCTACCCTGTGAAATCCTGCAAG  
GGGGTCCCGGTGAGCGAGGCGGAGTGCACGGCCATGGGGCTGCGCAGCGCAACCTGCGGGACAGGTTTT  
GGCTTGATCAACCAGGAGGAAACATGGTTACTGCTCGCCAGGAACCTCGCCTGGTCTGATTTCCCT  
GACCTGCGATGGTGACACCCTGACTCTCAGTGCAGCCTACACAAAGGACCTACTACTGCCTATCAAACG  
CCCACCACAAATGCAGTGACAAGTGCAGAGTGCACGGCCTGGAGATAGAGGGCAGGGACTGTGGCGAGG  
CCGCCGCCAGTGATAACCAGCTTCTGAAGTACAGCCCTACCGCCTGGTGCACCTTCGAGCCTCACAA  
GCGACCGAGAGCTCCTCATCAAATAGCAGACTTGTTCGACCCAAGGACCAGATTGCTTACTCAGACACC  
AGCCATTCTTGATCCTTTCTGAGGCGTCGCTGGCGGATCTCAACTCCAGGCTAGAGAAGAAAGTTAAAG  
CAACCAACTTCAGGCCAATATTGTAATTCAGGATGCGATGTCTATGCAGAGGATTCTTGGGATGAGCT  
TCTTATGGTGACGTGGAAGTAAAAGGGTGGTGGCTTGTCCAGATGCATTTAAACCACAGTGGACCCA  
GACACCGGTGTCATGAGCAGGAAGGAACCGCTGGAAACACTGAAGATTATCGCCAGTGTGACCCCTCAG  
AACGAAAAGTTATATGAAAATCACCACCTTTGGGCAGTATTTGTGCTGGAAAACCCAGGGACCATCAA  
AGTGGGAGACCCTGTGTACCTGCTGGGCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203674 protein sequence  
Red=Cloning site Green=Tags(s)

MGAAGSSALARFVLLAQSRPGWLGVAALGLTAVALGAVAWRRWPTRRRRLQQVGTVAQLWIYPVKSCK  
 GVPVSEAECTAMGLRSGNLRDFWLVINQEGNMVTARQEPRLVLSLTCGDGTLTLAAATKDLLLPKIKT  
 PTTNAVHKCRVHGLEIEGRDCGEAAAQWITSFLKSQPYRLVHFEPHKRPRRPHQIADLFRPKDQIAYSDT  
 SPFLILSEASLADLNSRLEKKVKATNFRPNIVISGCDVYAEDSWDELLIGDVELKRVMACSRCILTTVDP  
 DTGVMSRKEPLETLKSYRQC DP SERKLYGKSPLFGQYFVLENPGTIKVGDPVYLLGQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6303\\_e08.zip](https://cdn.origene.com/chromatograms/mk6303_e08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_022746

**ORF Size:** 1011 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\\_022746.2](#), [NP\\_073583.2](#)

**RefSeq Size:** 2258 bp

**RefSeq ORF:** 1014 bp

**Locus ID:** 64757

**UniProt ID:** [Q5VT66](#)

**Cytogenetics:** 1q41

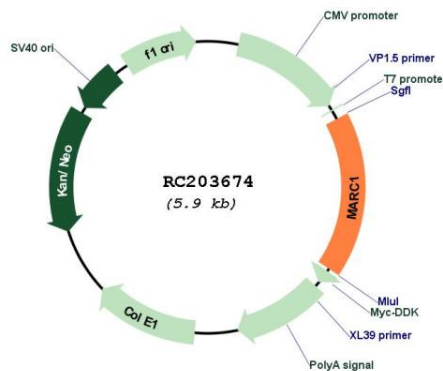
**Domains:** MOSC\_N

**Protein Families:** Transmembrane

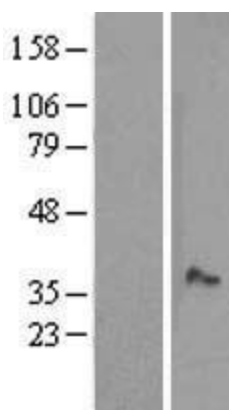
**MW:** 37.5 kDa

**Gene Summary:** As a component of an N-hydroxylated prodrug-converting complex required to reduce N-hydroxylated prodrugs, such as benzamidoxime. Also able to reduce N(omega)-hydroxy-L-arginine (NOHA) and N(omega)-hydroxy-N(delta)-methyl-L-arginine (NHAM) into L-arginine and N(delta)-methyl-L-arginine, respectively.[UniProtKB/Swiss-Prot Function]

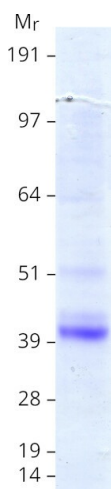
### Product images:



Circular map for RC203674



Western blot validation of overexpression lysate (Cat# [LY411585]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203674 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MARC1 protein (Cat# [TP303674]). The protein was produced from HEK293T cells transfected with MARC1 cDNA clone (Cat# RC203674) using MegaTran 2.0 (Cat# [TT210002]).