

Product datasheet for **RC203877**

MOSC2 (MARC2) (NM_017898) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | MOSC2 (MARC2) (NM_017898) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | MOSC2 |
| Synonyms: | MARC2; MOSC2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC203877 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGGCGCTTCCAGCTCCTCCGCGCTGGCCCGCTCGGCCTCCCAGCCCGGCCCTGGCCAGGTGGCTCG
GGGTCGCCGCGCTAGGACTGGCCCGCTGGCCCTGGGGACTGTCGCTGGCGCCGCGCATGGCCAGGCG
GCGCCGGCGGCTGCAGCAGGTGGCACCCTGGCGAAGCTCTGGATCTACCCGGTAAATCTGCAAAGGG
GTGCCGGTGAGCGAGGCTGAGTGCACGGCCATGGGGCTGCGCAGCGGCAACCTGCGGGACAGGTTTTGGC
TGGTGATTAAGGAAGATGGACACATGGTCACTGCCGACAGGAGCCTCGCCTCGTCTCATCTCCATCAT
TTATGAGAATAACTGCCTGATCTTCAGGGCTCCAGACATGGACCAGCTGGTTTTGCCTAGCAAGCAGCCT
TCCTCAAACAACTCCACAACCTGCAAGATATTTGGCCTTGACATTAAGGAGCAGAGACTGTGGCAATGAGG
CAGCTAAGTGTTACCAACTTCTTGAAGCTGAAGCGTATAGATTGGTTCAATTTGAGACAAACATGAA
GGGAAGAACATCAAGAAACTTCTCCCACTCTTGATCAGAAATTCAGGTGGCCTACCCAGACTACTGC
CCGCTCCTGATCATGACAGATGCCTCCCTGGTAGATTTGAATACCAGGATGGAGAAGAAAATGAAAATGG
AGAATTTAGGCCAAATATTGTGGTGACCGCTGTGATGCTTTGAGGAGGATACCTGGGATGAACCTCT
AATTGGTAGTGTAGAAGTAAAAAGGTAATGGCATGCCCAAGGTGATTTTGACAACGGTGGACCCAGAC
ACTGGAGTCATAGACAGGAAACAGCCACTGGACACCCTGAAGAGCTACCGCTGTGTGATCTTCTGAGA
GGGAATTTGACAAGTTGTCTCCACTTTTGGGATCTATTATTCAGTGGAAAAATTTGAAGCCTGAGAGT
TGGTGACCCTGTGTATCGGATGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203877 protein sequence
Red=Cloning site Green=Tags(s)

MGASSSSALARLGLPARPWRWLGVAALGLAAVALGTVAWRRAWPRRRRLQQVGTVAKLWIYPVKCKG
 VPVSEAECTAMGLRSGNLRDRFWLVIKEDGHMVTARQEPRLVLSIIYENNCLIFRAPDMDQLVLPKQP
 SSNKLHNCRIFGLDIKGRDCGNEAAKWFNFCLKTEAYRLVQFETNMKGRTSRKLLPTLDQNFQVAYPDYC
 PLLIMTDASLVDLNTRMKMKMENFRPNIVVTGCDAFEEDTWEDELLIGSVEVKVMACPRCILTTPD
 TGVIDRKQPLDTLKSRYRLCDPSERELYKLSPLFGIYYSVEKIGSLRVGDPVYRMV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6539_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017898

ORF Size: 1005 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_017898.5](#)

RefSeq Size: 1618 bp

RefSeq ORF: 1008 bp

Locus ID: 54996

UniProt ID: [Q969Z3](#)

Cytogenetics: 1q41

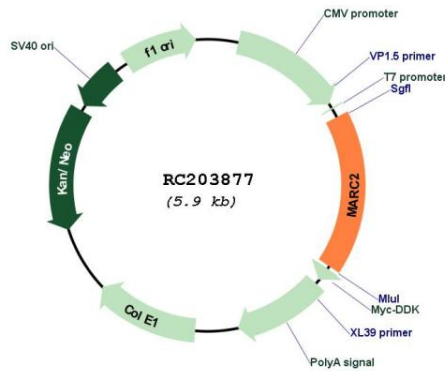
Domains: MOSC

Protein Families: Transmembrane

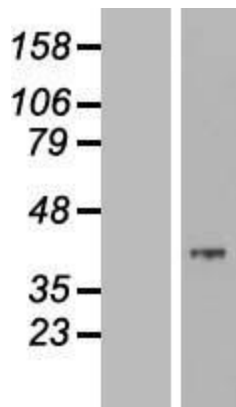
MW: 38 kDa

Gene Summary: The protein encoded by this gene is an enzyme found in the outer mitochondrial membrane that reduces N-hydroxylated substrates. The encoded protein uses molybdenum as a cofactor and cytochrome b5 type B and NADH cytochrome b5 reductase as accessory proteins. One type of substrate used is N-hydroxylated nucleotide base analogues, which can be toxic to a cell. Other substrates include N(omega)-hydroxy-L-arginine (NOHA) and amidoxime prodrugs, which are activated by the encoded enzyme. Multiple transcript variants encoding the different isoforms have been found for this gene. [provided by RefSeq, Sep 2016]

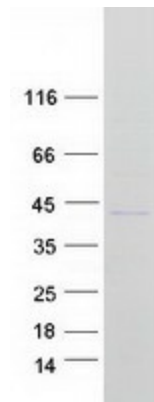
Product images:



Circular map for RC203877



Western blot validation of overexpression lysate (Cat# [LY413480]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203877 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MARC2 protein (Cat# [TP303877]). The protein was produced from HEK293T cells transfected with MARC2 cDNA clone (Cat# RC203877) using MegaTran 2.0 (Cat# [TT210002]).