

## Product datasheet for **SC106950**

### MOCS2 (NM\_176806) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MOCS2 (NM_176806) Human Untagged Clone
Tag:	Tag Free
Symbol:	MOCS2
Synonyms:	MCBPE; MOCO1; MOCODB; MPTS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_176806, the custom clone sequence may differ by one or more nucleotides

[ATGGTGCCGCTGTGCCAGGTTGAAGTATTGTATTTGCAAAAAGTGCTGAAATAACAGGAGTTCGTTTCAGAGACATTTCTGTGCCTCAAGAAATAAAAGCGTTGCAGCTGTGGAAGGAGATAGAAACTCGACATCCTGGATTGGCTGATGTTAGAAATCAGATAATATTTGCTGTTTCGTCAGCAAGAAATATGTCGAGCTTGGAGATCAGCTCTCGTGCTTCAGCTGGAGACGAAATTGCCGTTATCCCCCATTAGTGGAGGATAG](#)

#### 5' Read Nucleotide Sequence:

>OriGene 5' read for NM\_176806 unedited  
GTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCTAGGCGGGATGGTGC  
CGCTGTGCCAGGTTGAAGTATTGTATTTGCAAAAAGTGCTGAAATAACAGGAGTTCGTT  
CAGAGACCATTTCTGTGCCTCAAGAAATAAAAGCGTTGCAGCTGTGGAAGGAGATAGAAA  
CTCGACATCCTGGATTGGCTGATGTTAGAAATCAGATAATATTTGCTGTTTCGTCAGCAAGAA  
ATGTCGAGCTTGGAGATCAGCTCCTCGTGCTTCAGCCTGGAGACGAAATTGCCGTTATCC  
CCCCATTAGTGGAGGATAGTGCTTTTGAGCCATCTAGGAAAGATATGGATGAAGTTGAA  
GAGAAATCTAAAGATGTTATAAACTTTACTGCCGAGAACTTTTCAGTAGATGAAGTCTCA  
CAGTTGGTGATTTCTCCGCTCTGTGGTCAATATCCCTATTTGTAGGGACTACAAGAAAT  
AACTTTGAAGGGAAAAAGTCATTAGCTTAGAATATGAAGCATATCTACCCATGGCGGAA  
AATGAAGTCAGAAAGATTTGTAGTGACATTAGGCAGAAATGGCCAGTCAAACACATAGCA  
GTGTTCCATAGACTTGGCTTGGTTCCAGTGTGAGCAAGCAAGCATAATCATTGCTGTGTCC  
TCAGCCCCACAGAGCTGCATCTCTTGAAGCTGTGAGCTATGCCATTGATACTTTAAAAGCC  
AAGGTGCCCATATGAAAAAGGAAATATACGAAGATCATCAACTTGGAAAGGAACANAG  
AGTGCTTTTGGGCATCCACAGTTAATCACTTATGTTNNTAGAGCATGCAATCTTAACTT  
GTTAACTATTATTGATCCATTNTGATTTTTTCTCTCCCATCGGATAGTTACTGAAGC  
CATCTCTTTACTAGTGGACAAAGGGAGAAAAGGAGCAGATAAC



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<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_176806
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_176806.2</a></u> , <u><a href="#">NP_789776.1</a></u>
<b>RefSeq Size:</b>	1347 bp
<b>RefSeq ORF:</b>	267 bp
<b>Locus ID:</b>	4338
<b>UniProt ID:</b>	<u><a href="#">O96033</a></u>
<b>Cytogenetics:</b>	5q11.2
<b>Protein Families:</b>	Druggable Genome

**Gene Summary:**

Eukaryotic molybdoenzymes use a unique molybdenum cofactor (MoCo) consisting of a pterin, termed molybdopterin, and the catalytically active metal molybdenum. MoCo is synthesized from precursor Z by the heterodimeric enzyme molybdopterin synthase. The large and small subunits of molybdopterin synthase are both encoded from this gene by overlapping open reading frames. The proteins were initially thought to be encoded from a bicistronic transcript. They are now thought to be encoded from monocistronic transcripts. Alternatively spliced transcripts have been found for this locus that encode the large and small subunits. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) has an alternate splice site in the 5' region, as compared to variant 3. This variant encodes the small subunit MOCS2A, also called MOCO1-A, which is derived from the upstream ORF and is supported by PMID 16737835. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. CCDS Note: This CCDS ID represents the protein described in PMIDs: 10053003, 16737835 and 9889283. This transcript is supported by BC095417.1. It should be noted this transcript is predicted to undergo nonsense-mediated mRNA decay (NMD). However, the protein is represented because it was detected endogenously in PMID: 10053003 and 16737835.