

# Recombinant Human Molybdenum Cofactor Synthesis 2, His-tagged

**Cat. No.** MOCS2-7145H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human MOCS2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques. MW: 25 kDa.                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | 1-188aa                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | MOCS2 is a heterotetrameric synthase composed of two small (MOCS2A) and two large (MOCS2B) subunits. The large and small subunits of molybdopterin synthase are both encoded from this gene by overlapping open reading frames. MOCS2 functions in the second step of the synthesis of molybdenum cofactor or molybdopterin (MPT). It catalyzes the formation of MPT from precursor Z by incorporating a dithiolene functional group. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 50% glycerol, 1mM DTT                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>   | 25 kDa (224aa) confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>AA Sequence</b>      | MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMSSL EISSSCFSLE<br>TKLPLSPPLV EDSAFEPSRK DMDEVEEKSK DVINFTAEL SVDEVSQLVI                                                                                                                                                                                                                                                                                                                       |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

SPLCGAISLF VGTTNNFEG KKVISLEYEA YLPMAENEVR KICS DIRQKW  
 PVKHIAVFHR LGLVPVSEAS IIIAVSSAHR AASLEAVSYA IDTLKAKVPI  
 WKKEIYEES TWKGNKECFW ASNS

**Purity** >90% by SDS - PAGE

**Applications** SDS-PAGE

**Storage** Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Concentration** 0.25 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [MOCS2 molybdenum cofactor synthesis 2 \[ Homo sapiens \]](#)

**Official Symbol** MOCS2

### Synonyms

MOCS2; molybdenum cofactor synthesis 2; molybdopterin synthase catalytic subunit; MOCO1; MOCO1-A; MOCO1-B; MPT synthase large subunit; sulfur carrier protein MOCS2A; molybdopterin-synthase large subunit; molybdopterin-synthase small subunit; molybdenum cofactor synthesis protein 2A; molybdenum cofactor synthesis protein 2B; molybdenum cofactor biosynthesis protein E; molybdopterin synthase sulfur carrier subunit; molybdenum cofactor synthesis protein 2 large subunit; molybdenum cofactor synthesis protein 2 small subunit; MPTS; MCBPE; MOCS2A; MOCS2B;

**Gene ID** [4338](#)

**mRNA Refseq** [NM\\_004531](#)

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protein Refseq</b>      | NP_004522                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>MIM</b>                 | 603708                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID</b>          | O96007                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Chromosome Location</b> | 5q11                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Pathway</b>             | Folate biosynthesis, organism-specific biosystem; Folate biosynthesis, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of vitamins and cofactors, organism-specific biosystem; Metabolism of water-soluble vitamins and cofactors, organism-specific biosystem; Molybdenum cofactor biosynthesis, organism-specific biosystem; |
| <b>Function</b>            | Mo-molybdopterin synthase activity; contributes_to Mo-molybdopterin synthase activity; Mo-molybdopterin synthase activity; identical protein binding; nucleotide binding; transferase activity;                                                                                                                                                                                                          |

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