

Recombinant Mouse MocS3 Protein, Myc/DDK-tagged

Cat. No. MocS3-4110M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length molybdenum cofactor synthesis 3 (MocS3), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Plays a central role in 2-thiolation of mcm5S2U at tRNA wobble positions of cytosolic tRNA(Lys), tRNA(Glu) and tRNA(Gln). Also essential during biosynthesis of the molybdenum cofactor. Acts by mediating the C-terminal thiocarboxylation of sulfur carriers URM1 and MOCS2A. Its N-terminus first activates URM1 and MOCS2A as acyl-adenylates (-COAMP), then the persulfide sulfur on the catalytic cysteine is transferred to URM1 and MOCS2A to form thiocarboxylation (-COSH) of their C-terminus. The reaction probably involves hydrogen sulfide that is generated from the persulfide intermediate and that acts as nucleophile towards URM1 and MOCS2A. Subsequently, a transient disulfide bond is formed. Does not use thiosulfate as sulfur donor; NFS1 probably acting as a sulfur donor for thiocarboxylation reactions.
Molecular Mass	49.4 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Mocs3 molybdenum cofactor synthesis 3 [Mus musculus (house mouse)]
Official Symbol	Mocs3
Synonyms	MOCS3; molybdenum cofactor synthesis 3; adenylyltransferase and sulfurtransferase MOCS3; MPT synthase sulfurylase; molybdopterin synthase sulfurylase; molybdenum cofactor synthesis protein 3; Uba4; 1700020H17Rik
Gene ID	69372
mRNA Refseq	NM_001160330
Protein Refseq	NP_001153802
UniProt ID	A2BDX3

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