Recombinant Human MOCS3, His-tagged

Cat. No. MOCS3-143H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Adenylyltransferase and Sulfurtransferase MOCS3/MOCS3 is produced by our mammalian expression system in human cells. The target protein is expressed with sequence (Met1-Tyr460) of Human MOCS3 fused with a polyhistidine tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	1-460 a.a.
Description	Adenylyltransferase and Sulfurtransferase MOCS3 (MOCS3) is a member of the hesA/moeB/thiF family. MOCS3 contains one Molybdopterin-synthase adenylyltransferase domain and one Molybdopterin-synthase sulfurtransferase domain. MOCS3 plays an important role in 2-thiolation of mcm5S2U at tRNA wobble positions of tRNA(Lys), tRNA(Glu) and tRNA(Gln), MOCS3 is essential for biosynthesis of the molybdenum cofactor. MOCS3 can interact with NFS1, which may act as a sulfur donor for thiocarboxylation reactions.
AA Sequence	MASREEVLALQAEVAQREEELNSLKQKLASALLAEQEPQPERLVPVSPLPPKAALSR DEILRYSR QLVLPELGVHGQLRLGTACVLIVGCGGLGCPLAQYLAAAGVGRLGLVD YDVVEMSNLARQVLHGE ALAGQAKAFSAAASLRRLNSAVECVPYTQALTPATALDL VRRYDVVADCSDNVPTRYLVNDACVL AGRPLVSASALRFEGQITVYHYDGGPCYR CIFPQPPPAETVTNCADGGVLGVVTGVLGCLQALEV LKIAAGLGPSYSGSLLLFDAL

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	RGHFRSIRLRSRRLDCAACGERPTVTDLLDYEAFCGSSATDKCR SLQLLSPEERVS VTDYKRLLDSGAFHLLLDVRPQVEVDICRLPHALHIPLKHLERRDAESLKLLK EAIWE EKQGTQEGAAVPIYVICKLGNDSQKAVKILQSLSAAQELDPLTVRDVVGGLMAWAAK IDG TFPQYVDHHHHHH
Endotoxin	Less than 0.1 ng/μg (1 IEU/μg).
Purity	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.

GENE INFORMATION

Gene Name	MOCS3 molybdenum cofactor synthesis 3 [Homo sapiens]
Official Symbol	MOCS3
Synonyms	MOCS3; molybdenum cofactor synthesis 3; adenylyltransferase and sulfurtransferase MOCS3; dJ914P20.3; UBA4; ubiquitin activating enzyme E1 homolog (yeast); ubiquitin like modifier activating enzyme 4; MPT synthase sulfurylase; molybdopterin synthase sulfurylase; molybdenum cofactor synthesis protein 3; ubiquitin-like modifier activating enzyme 4; UBA4, ubiquitin-activating enzyme E1 homolog; MGC9252;
Gene ID	27304
mRNA Refseq	NM_014484
Protein Refseq	NP_055299
MIM	609277
UniProt ID	O95396

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Chromosome Location	20q13.13
Pathway	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; Sulfur relay system, organism-specific biosystem; Sulfur relay system, conserved biosystem; molybdenum cofactor biosynthesis, conserved biosystem;
Function	ATP binding; URM1 activating enzyme activity; metal ion binding; nucleotide binding; nucleotidyltransferase activity; protein binding; sulfurtransferase activity; sulfurtransferase activity; thiosulfate sulfurtransferase activity; transferase activity;

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