SANTA CRUZ BIOTECHNOLOGY, INC.

MOCS2 (FL-188): sc-134790

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MOCS2 (molybdopterin synthase) is a heterotetrameric synthase composed of two small (MOCS2A) and two large (MOCS2B) subunits. The small and large subunits are both encoded by a single bicistronic mRNA, with the open reading frames overlapping by 77 nucleotides. 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. The C-terminus of the small subunit of MOCS2 acts as the sulfur donor for the synthesis of this functional group. MPT is inserted into molybdoenzymes and is required for the proper function of aldehyde oxidase, xanthine dehydrogenase and sulphite oxidase enzymes. Mutations in the gene encoding MOCS2 can lead to molybdenum cofactor deficiency and can result in early childhood death.

REFERENCES

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3. Leimkuhler, S., et al. 2003. Mechanistic studies of human molybdopterin synthase reaction and characterization of mutants identified in group B patients of molybdenum cofactor deficiency. J. Biol. Chem. 278: 26127-26134.
4. Suzuki, M., et al. 2005. The maize viviparous 15 locus encodes the molybdopterin synthase small subunit. Plant J. 45: 264-274.
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6. Singh, S., et al. 2005. Three-dimensional structure of the AAH26994.1 protein from *Mus musculus*, a putative eukaryotic Urm1. Protein Sci. 14: 2095-2102.
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CHROMOSOMAL LOCATION

Genetic locus: MOCS2 (human) mapping to 5q11.2; Mocs2 (mouse) mapping to 13 D2.2.

SOURCE

MOCS2 (FL-188) is a rabbit polyclonal antibody raised against amino acids 1-188 representing full length MOCS2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MOCS2 (FL-188) is recommended for detection of MOCS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MOCS2 (FL-188) is also recommended for detection of MOCS2 in additional species, including canine, bovine and porcine.

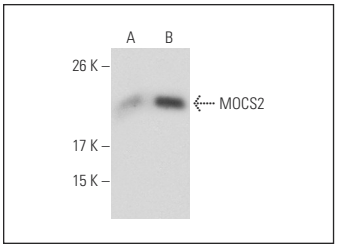
Suitable for use as control antibody for MOCS2 siRNA (h): sc-72268, MOCS2 siRNA (m): sc-72269, MOCS2 shRNA Plasmid (h): sc-72268-SH, MOCS2 shRNA Plasmid (m): sc-72269-SH, MOCS2 shRNA (h) Lentiviral Particles: sc-72268-V and MOCS2 shRNA (m) Lentiviral Particles: sc-72269-V.

Molecular Weight of MOCS2 small subunit: 10 kDa.

Molecular Weight of MOCS2 large subunit: 21 kDa.

Positive Controls: MOCS2 (h): 293T Lysate: sc-116247 or Jurkat whole cell lysate: sc-2204.

DATA



MOCS2 (FL-188): sc-134790. Western blot analysis of MOCS2 expression in non-transfected: sc-117752 (**A**) and human MOCS2 transfected: sc-116247 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.