

# MOCS2 (F-14): sc-54105

## BACKGROUND

MOCS2 (molybdopter 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

MOCS2 (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MOCS2 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-54105 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

MOCS2 (F-14) is recommended for detection of MOCS2 large subunit 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 (F-14) is also recommended for detection of MOCS2 large subunit in additional species, including canine and bovine.

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 large subunit: 21 kDa.

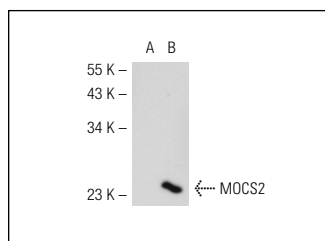
Molecular Weight of MOCS2 small subunit: 10 kDa.

Positive Controls: MOCS2 (m): 293T Lysate: sc-121709 or Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MOCS2 (F-14): sc-54105. Western blot analysis of MOCS2 expression in non-transfected: sc-117752 (A) and mouse MOCS2 transfected: sc-121709 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MOCS2 (F-9): sc-377169** or **MOCS2 (G-9): sc-377343**, our highly recommended monoclonal alternatives to MOCS2 (F-14).