

# MoCo Sulfurase (E-17): sc-85066

## BACKGROUND

The biosynthesis of molybdenum cofactor is a highly conserved pathway that leads to the activation of molybdenum, a transitional element used as a metal hetero-atom in the active site of certain enzymes. MoCo Sulfurase (molybdenum cofactor sulfurase), also known as HMCS and MOS, is a 888 amino acid enzyme that sulfurates molybdenum cofactor so that it can be utilized by xanthine dehydrogenase and aldehyde oxidase. Defects in the gene encoding MoCo Sulfurase is the cause of type II xanthinuria, a condition that is characterized by excretion of large amounts of xanthine in urine and the subsequent formation of xanthine stones. Due to the deficiencies of xanthine dehydrogenase and aldehyde oxidase, patients suffering from type II xanthinuria also cannot metabolize allopurinol into oxypurinol, leading to decreases in uric acid formation and purine synthesis.

## REFERENCES

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3. Kômoto, N., et al. 2003. Mutations of the silkworm molybdenum cofactor sulfurase gene, *og*, cause translucent larval skin. *Insect Biochem. Mol. Biol.* 33: 417-427.
4. Yamamoto, T., et al. 2003. Identification of a new point mutation in the human molybdenum cofactor sulfurase gene that is responsible for xanthinuria type II. *Metab. Clin. Exp.* 52: 1501-1504.
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7. Mendel, R.R., et al. 2006. Cell biology of molybdenum. *Biochim. Biophys. Acta* 1763: 621-635.
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## CHROMOSOMAL LOCATION

Genetic locus: MOCOS (human) mapping to 18q12.2; Mocos (mouse) mapping to 18 A2.

## STORAGE

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

## SOURCE

MoCo Sulfurase (E-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of MoCo Sulfurase of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MoCo Sulfurase (E-17) is recommended for detection of MoCo Sulfurase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MoCo Sulfurase (E-17) is also recommended for detection of MoCo Sulfurase in additional species, including canine and porcine.

Suitable for use as control antibody for MoCo Sulfurase siRNA (h): sc-75806, MoCo Sulfurase siRNA (m): sc-149494, MoCo Sulfurase shRNA Plasmid (h): sc-75806-SH, MoCo Sulfurase shRNA Plasmid (m): sc-149494-SH, MoCo Sulfurase shRNA (h) Lentiviral Particles: sc-75806-V and MoCo Sulfurase shRNA (m) Lentiviral Particles: sc-149494-V.

Molecular Weight of MoCo Sulfurase: 98 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.