

# MPST (C-12): sc-86168

## BACKGROUND

MPST (mercaptopyruvate sulfurtransferase), also known as MST or TST2, is a 297 amino acid protein that localizes to the cytoplasm and contains two Rhodanese domains. Existing as a monomer or as a disulfide-linked homodimer, MPST functions to catalyze the transfer of a sulfur ion to select thiol compounds, such as cyanide, and is thought to be involved in cyanide detoxification and cysteine degradation. MPST deficiency may be associated with the pathogenesis of the rare disorder mercaptolactate-cysteine disulfiduria (MCDU). The gene encoding MPST maps to human chromosome 22q12.3, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MPST (human) mapping to 22q12.3; Mpst (mouse) mapping to 15 E1.

## SOURCE

MPST (C-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of MPST 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, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MPST (C-12) is recommended for detection of MPST 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).

Suitable for use as control antibody for MPST siRNA (h): sc-75821, MPST siRNA (m): sc-149542, MPST shRNA Plasmid (h): sc-75821-SH, MPST shRNA Plasmid (m): sc-149542-SH, MPST shRNA (h) Lentiviral Particles: sc-75821-V and MPST shRNA (m) Lentiviral Particles: sc-149542-V.

Molecular Weight of MPST: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 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<sup>™</sup> Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MPST (H-11): sc-376168** or **MPST (D-8): sc-374326**, our highly recommended monoclonal alternatives to MPST (C-12).