SANTA CRUZ BIOTECHNOLOGY, INC.

MDP-1 (T-14): sc-163073

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MDP-1 (magnesium-dependent phosphatase 1), also known as FN6PASE, is a 176 amino acid protein that belongs to the HAD-like hydrolase superfamily and is thought to function as a tyrosine phosphatase. Existing as three alternatively spliced isoforms, MDP-1 binds magnesium as a cofactor and is inhibited by vanadate and zinc. The gene encoding MDP-1 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MDP1 (human) mapping to 14q12; Mdp1 (mouse) mapping to 14 C3.

SOURCE

MDP-1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MDP-1 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.

Blocking peptide available for competition studies, sc-163073 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MDP-1 (T-14) is recommended for detection of MDP-1 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).

MDP-1 (T-14) is also recommended for detection of MDP-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MDP-1 siRNA (h): sc-92145, MDP-1 siRNA (m): sc-149341, MDP-1 shRNA Plasmid (h): sc-92145-SH, MDP-1 shRNA Plasmid (m): sc-149341-SH, MDP-1 shRNA (h) Lentiviral Particles: sc-92145-V and MDP-1 shRNA (m) Lentiviral Particles: sc-149341-V.

Molecular Weight of MDP-1 isoforms: 20/15/14 kDa.

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) 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.

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.