SANTA CRUZ BIOTECHNOLOGY, INC.

MPP1 (E-14): sc-107002

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Kinesins constitute a large family of microtubule-dependent motor proteins which are responsible for the distribution of numerous organelles, vesicles and macromolecular complexes throughout the cell. Individual Kinesin members play crucial roles in cell division, intracellular transport and membrane trafficking events, including endocytosis and transcytosis. MPP1 (M-phase phosphoprotein 1), also known as KIF20B (Kinesin family member 20B), MPHOSPH1 or KRMP1, is a 1,820 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one Kinesin-motor domain. Expressed in kidney, brain, testis and ovary, MPP1 functions as a plus-end directed motor enzyme that interacts with Pin1 and is required for the completion of cytokinesis. MPP1, which exists as multiple alternatively spliced isoforms termed 1-5, is subject to post-translational phosphorylation, probably by ATM or ATR.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KIF20B (human) mapping to 10q23.31; Kif20b (mouse) mapping to 19 C2.

SOURCE

MPP1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MPP1 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-107002 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MPP1 (E-14) is recommended for detection of MPP1 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); non cross-reactive with MPP1 isoform 4.

MPP1 (E-14) is also recommended for detection of MPP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MPP1 siRNA (h): sc-90399, MPP1 siRNA (m): sc-149533, MPP1 shRNA Plasmid (h): sc-90399-SH, MPP1 shRNA Plasmid (m): sc-149533-SH, MPP1 shRNA (h) Lentiviral Particles: sc-90399-V and MPP1 shRNA (m) Lentiviral Particles: sc-149533-V.

Molecular Weight of MPP1: 220 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.