



MIPP (T-20): sc-10404

BACKGROUND

MIPP (multiple inositol polyphosphate phosphatase) is the only enzyme that is solely responsible for a diverse range of catalytic activities, including the hydrolysis of inositol pentakisphosphate and inositol hexakisphosphate. The structural and functional similarity of MIPP to the chick protein HiPER1 (histidine acid phosphatase) reveals that MIPP contains the catalytic requirement of histidine acid phosphatases. The evolutionary conservation of MIPP in mouse (also called (MMU)Minpp1), human (also called (HSA)MINPP1), chick, plant and fruit fly within the histidine phosphatase family suggests a significant role for multiple inositol polyphosphatase throughout higher eukaryotes. MIPP is mapped to a region of chromosome 10 that is often mutated in human cancers. Its carboxy terminal domain contains a signal for retaining soluble proteins in the lumen of the endoplasmic reticulum. MIPP was originally isolated from rat liver and is also highly expressed in rat kidney.

REFERENCES

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3. Romano, P.R., Wang, J., O'keefe, R.J., Puzas, J.E., Rosier, R.N. and Reynolds, P.R. 1998. HiPER1, a phosphatase of the endoplasmic reticulum with a role in chondrocyte maturation. *J. Cell Sci.* 111: 803-813.
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5. Caffrey, J.J., Hidaka, K., Matsuda, M., Hirata, M. and Shears, S.B. 1999. The human and rat forms of multiple inositol polyphosphate phosphatase: functional homology with a histidine acid phosphatase up-regulated during endochondral ossification. *FEBS Lett.* 442: 99-104.

SOURCE

MIPP (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MIPP 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-10404 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

MIPP (T-20) is recommended for detection of MIPP of mouse and rat 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).

Suitable for use as control antibody for MIPP siRNA (m): sc-149440, MIPP shRNA Plasmid (m): sc-149440-SH and MIPP shRNA (m) Lentiviral Particles: sc-149440-V.

Molecular Weight of MIPP: 47 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

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.

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.