

MAP-1S (4H2): sc-517081

BACKGROUND

Microtubules, the primary component of the cytoskeletal network, interact with proteins called microtubule-associated proteins (MAPs). The microtubule-associated proteins can be divided into two groups, structural and dynamic. The MAP proteins function to stimulate Tubulin assembly, enhance microtubule stability, influence the spatial distribution of microtubules within cells and utilize microtubule polarity to translocate cellular components. MAP-1S (microtubule-associated protein 1S), also known as MAP8 (microtubule-associated protein 8), BPY2IP1 (BPY2-interacting protein 1) or VCY2IP1 (variable charge Y chromosome 2-interacting protein 1), is a 1,059 amino acid protein that belongs to the MAP1 family and plays a role in formation of microtubule bundles. Localizing to the nucleus and cytoplasm, MAP-1S is expressed in cerebral cortex, testis, brain, heart, colon, kidney, liver, lung, placenta, spleen, stomach, small intestine and neurons.

REFERENCES

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- Eriksson, M., et al. 2007. The NMDAR subunit NR3A interacts with microtubule-associated protein 1S in the brain. *Biochem. Biophys. Res. Commun.* 361: 127-132.
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CHROMOSOMAL LOCATION

Genetic locus: MAP1S (human) mapping to 19p13.11.

SOURCE

MAP-1S (4H2) is a mouse monoclonal antibody raised against amino acids 929-1026 representing partial length MAP-1S of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MAP-1S (4H2) is recommended for detection of MAP-1S of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAP-1S siRNA (h): sc-97763, MAP-1S shRNA Plasmid (h): sc-97763-SH and MAP-1S shRNA (h) Lentiviral Particles: sc-97763-V.

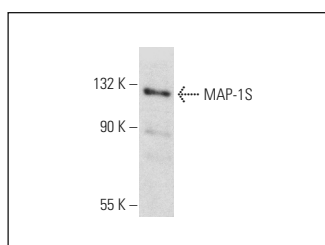
Molecular Weight of MAP-1S: 112 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

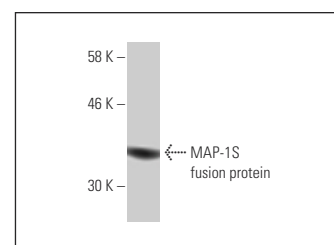
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MAP-1S (4H2): sc-517081. Western blot analysis of MAP-1S expression in Hep G2 whole cell lysate.



MAP-1S (4H2): sc-517081. Western blot analysis of human recombinant MAP-1S fusion protein.

SELECT PRODUCT CITATIONS

- Wang, J., et al. 2021. RASSF1A enhances chemosensitivity of NSCLC cells through activating autophagy by regulating MAP1S to inactivate Keap1-Nrf2 pathway. *Drug Des. Devel. Ther.* 15: 21-35.

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.