SANTA CRUZ BIOTECHNOLOGY, INC.

MAP-1B (H-130): sc-25729

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 structural microtubule-associated proteins, MAP-1A, MAP-1B, MAP-2A, MAP-2B and MAP-2C, stimulate tubulin assembly, enhance microtubule stability and influence the spatial distribution of microtubules within cells. Both MAP-1 and, to a greater extent, MAP-2 have been implicated as agents of microtubule depolymerization by suppressing the dynamic instability of the microtubules. The suppression of microtubule dynamic instability by the MAP proteins is thought to be associated with phosphorylation of the MAPs.

CHROMOSOMAL LOCATION

Genetic locus: MAP1B (human) mapping to 5q13.2; Map1b (mouse) mapping to 13 D1.

SOURCE

MAP-1B (H-130) is a rabbit polyclonal antibody raised against amino acids 2221-2350 of MAP-1B 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MAP-1B (H-130) is recommended for detection of MAP-1B 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MAP-1B (H-130) is also recommended for detection of MAP-1B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAP-1B siRNA (h): sc-35851, MAP-1B siRNA (m): sc-35852, MAP-1B shRNA Plasmid (h): sc-35851-SH, MAP-1B shRNA Plasmid (m): sc-35852-SH, MAP-1B shRNA (h) Lentiviral Particles: sc-35851-V and MAP-1B shRNA (m) Lentiviral Particles: sc-35852-V.

Molecular Weight (predicted) of MAP-1B heavy chain: 271 kDa.

Molecular Weight (observed) of MAP-1B heavy chain: 325 kDa.

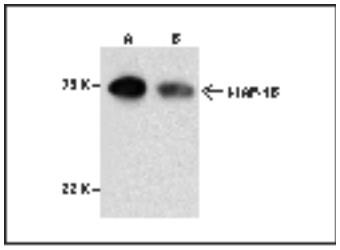
Molecular Weight of MAP-1B light chain: 34 kDa.

Positive Controls: mouse brain extract: sc-2253, U-87 MG cell lysate: sc-2411 or PC-12 cell lysate: sc-2250.

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



MAP-1B (H-130): sc-25729. Immunofluorescence staining of methanol-fixed PC-12 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining of neuronal cells (**B**).

SELECT PRODUCT CITATIONS

1. Sachana, M., et al. 2008. Inhibition of extension outgrowth in differentiating rat C6 glioma cells by chlorpyrifos and chlorpyrifos oxon: effects on microtubule proteins. Toxicol. In Vitro 22: 1387-1391.
2. Sidiropoulou, E., et al. 2009. Diazinon oxon interferes with differentiation of rat C6 glioma cells. Toxicol. In Vitro 23: 1548-1552.
3. Rovelet-Lecrux, A., et al. 2009. Partial deletion of the MAPT gene: a novel mechanism of FTDP-17. Hum. Mutat. 30: E591-E602.

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.