**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-4 is a non-neuronal microtubule-associated protein that contains three, 18 amino acid repeats that are homologous to the repeats found in several other MAP proteins. Studies have shown that MAP-4 is involved with interphase microtubule, mitotic spindle fibers and mitotic movements. The protein, which promotes microtubule assembly, is primarily expressed in kidney, lung, liver, testis and spleen.

**CHROMOSOMAL LOCATION**

Genetic locus: MAP4 (human) mapping to 3p21.31; Map4 (mouse) mapping to 9 F2.

**SOURCE**

MAP-4 (G-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MAP-4 of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAP-4 (G-10) is available conjugated to agarose (sc-390286 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390286 HRP), 200 µg/ml, for WB, IHC/P and ELISA; to either phycoerythrin (sc-390286 PE), fluorescein (sc-390286 FITC), Alexa Fluor® 488 (sc-390286 AF488), Alexa Fluor® 546 (sc-390286 AF546), Alexa Fluor® 594 (sc-390286 AF594) or Alexa Fluor® 647 (sc-390286 AF647), 200 µg/ml, for WB, IHC/P, IF, IHC/P and FCM; and to either Alexa Fluor® 680 (sc-390286 AF680) or Alexa Fluor® 790 (sc-390286 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

MAP-4 (G-10) is recommended for detection of MAP-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAP-4 siRNA (h): sc-106198, MAP-4 siRNA (m): sc-77385, MAP-4 shRNA Plasmid (h): sc-106198-SH, MAP-4 shRNA Plasmid (m): sc-77385-SH, MAP-4 shRNA (h) Lentiviral Particles: sc-106198-V and MAP-4 shRNA (m) Lentiviral Particles: sc-77385-V.

Molecular Weight of MAP-4: 210 kDa.

Positive Controls: KNRK nuclear extract: sc-2141.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

![Western blot analysis of MAP-4 expression in KNRK nuclear extract.](image)

![Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoskeletal localization (A). Immunofluorescence staining of formalin-fixed HEK293 cells showing cytoplasmic localization (B).](image)

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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