## SANTA CRUZ BIOTECHNOLOGY, INC.

# MAP-2 (h): 293T Lysate: sc-115536



#### BACKGROUND

Microtubules, the primary component of the cytoskeletal network, interact with proteins called microtubule-associated proteins (MAPs). The microtubuleassociated 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.

### REFERENCES

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- 3. Hasegawa, M., Arai, T. and Ihara, Y. 1990. Immunochemical evidence that fragments of phosphorylated MAP5 (MAP1B) are bound to neurofibrillary tangles in Alzheimer's disease. Neuron 4: 909-918.
- 4. MacRae, T.H. 1992. Towards an understanding of microtubule function and cell organization: an overview. Biochem. Cell Biol. 70: 835-841.
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- 8. Vandecandelaere, A., Pedrotti, B., Utton, M.A., Calvert, R.A. and Bayley, P.M. 1996. Differences in the regulation of microtubule dynamics by microtubule-associated proteins MAP1B and MAP2. Cell Motil. Cytoskeleton 35: 134-146.

#### CHROMOSOMAL LOCATION

Genetic locus: MAP2 (human) mapping to 2q34.

#### PRODUCT

MAP-2 (h): 293T Lysate represents a lysate of human MAP-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

#### **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

MAP-2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MAP-2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MAP-2 (A-8): sc-74422 is recommended as a positive control antibody for Western Blot analysis of enhanced human MAP-2 expression in MAP-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG K BP-HRP: sc-516102 or m-lgG K 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.

#### DATA





MAP-2 (A-8): sc-74422. Western blot analysis of MAP-2 expression in non-transfected: sc-117752 (A) and human MAP-2 transfected: sc-115536 (B) 293T whole cell lysates

MAP-2 (A-4): sc-74421. Western blot analysis of MAP-2 expression in non-transfected: sc-117752 (A) and human MAP-2 transfected: sc-115536 (B) 293T whole cell lysates

#### **RESEARCH USE**

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

#### PROTOCOLS

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