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Product Information

Anti-MAP2
produced in rabbit, affinity isolated antibody

Catalog Number **M3696**

Product Description

Anti-MAP2 is produced in rabbit using as immunogen a synthetic peptide corresponding to residues 2-15 [ADERKDEGKAPHWT] of human MAP2 (GeneID 4133). The antibody is affinity-purified.

Anti-MAP2 recognizes human, mouse, and rat MAP2. Applications include the detection of MAP2 by immunoblotting (~72 kDa and 280 kDa), immunohistochemistry, and flow cytometry.

Microtubule-associated protein 2 (MAP2) is a protein that belongs to the microtubule-associated protein family. MAP2 is involved in microtubule assembly, which is an essential step in neurogenesis. The products of similar genes in rat and mouse are neuron-specific cytoskeletal proteins that are enriched in dendrites, implicating a role in determining and stabilizing dendritic morphology during neural development. A number of alternatively spliced variants encoding distinct isoforms have been described; however the exact function of these isoforms is unknown. MAP2 is made up of two 280 kDa apparent molecular weight bands (predicted size is 239 kDa) referred to as MAP2a and MAP2b. A lower molecular weight form, MAP2c, is a pair and has an apparent molecular weight of 72 kDa. Numerous other variants are predicted to have a molecular weight of 70-80 kDa.

Reagent

Supplied as a solution in phosphate buffered saline, containing 0.02% sodium azide.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to three months. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers is not recommended.

Product Profile

Immunoblotting: a working dilution of 1:500 to 1:1,000 is recommended.

Immunohistochemistry: a working dilution of 1:100 to 1:200 is recommended.

Flow Cytometry: a working dilution of 1:200 to 1:500 is recommended.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Loveland, K. L, et al., Novel low molecular weight microtubule-associated protein-2 isoforms contain a functional nuclear localization sequence. *J Biol Chem*. **274**(27):19261-8 (1999).
2. Albala, J. S., et al., Characterization of the transcripts encoding two isoforms of human microtubule-associated protein-2 (MAP-2). *Gene* **136**(1-2), 377-378 (1993).
3. Kalcheva, N., et al., Genomic structure of human microtubule-associated protein 2 (MAP-2) and characterization of additional MAP-2 isoforms. *Proc. Nat. Acad. Sci.* **92**: 10894-10898 (1995).

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