

**MOUSE ANTI-MAP-2  
ALEXA FLUOR<sup>®</sup> 488 CONJUGATED  
MONOCLONAL ANTIBODY**

**CATALOG NUMBER:** MAB3418X

**LOT NUMBER:**

**QUANTITY:** 100 µg

**CONCENTRATION:** 1 mg/mL

**SPECIFICITY:** MAP-2 (microtubule associated protein-2) is one of several high molecular weight proteins that play an important role in brain microtubule assembly. In addition to its association with microtubules, MAP-2 associates with neurofilaments and actin filaments suggesting that it may guide interaction among microtubules, other cytoskeletal elements, and cytoplasmic organelles (1).

MAP-2 is a stringent marker for neurons. In addition, MAP-2 displays intracellular specificity. In the central nervous system, MAP-2 is confined to neuronal cell bodies and dendrites. There are exceptions, however, where some axons stain positive for small amounts of MAP-2 (2,3). MAP-2 is uniformly distributed throughout the cell when first expressed in cultured neurons but becomes selectively localized as dendritic development proceeds (4,5).

**SDS-PAGE Profiles:** In SDS-PAGE MAP-2 from adult rat migrates as a closely associated doublet having a molecular weight of approximately 300 kD. However, early in brain development (postnatal day 10 in rats), MAP-2 migrates as a single band that is identical to the lower molecular weight band of the adult MAP-2 doublet (MAP-2b). Later in development (postnatal days 17-18), the mobility of MAP-2 changes to the adult doublet form. (In the spinal cord, conversion to the adult form occurs earlier).

**IMMUNOGEN:** Bovine brain microtubule protein.

**ISOTYPE:** IgG<sub>1</sub>

**CLONE NAME:** AP20

**APPLICATIONS:** Immunohistochemistry 1:500-1:1,000  
Optimal working dilutions must be determined by end user.

**SPECIES REACTIVITIES:** Human, cow, rat, mouse, and chicken.

**FORMAT:** Purified immunoglobulin conjugated to Alexa Fluor<sup>®</sup> 488.

**PRESENTATION:** Liquid in Phosphate buffer with 15 mg/mL BSA as a stabilizer and 0.1% sodium azide.

*For research use only; not for use as a diagnostic.*

**STORAGE/HANDLING:** Maintain at 2-8°C in undiluted aliquots in the dark for up to 6 months after date of receipt.

- REFERENCES:**
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  11. Harlow, E. & Lane, D. (1988) *Antibodies: A Laboratory Manual* p. 359, Cold Spring Harbor Laboratory, N.Y.
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#### APPLICATION NOTES

**Immunohistochemistry:** Anti-MAP-2 can be used to stain tissue (brain or spinal cord) fixed with paraformaldehyde.

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