

**Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody**  
Our Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) primary antibody from PhosphoSolutions is mo  
Catalog # AN1438

## Specification

### Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P11137</a>
Reactivity	Bovine, Chicken
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	199526

### Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody - Additional Information

Gene ID **4133**

#### Other Names

DKFZp686I2148 antibody, MAP 2 antibody, MAP dendrite specific antibody, MAP-2 antibody, MAP2 antibody, MAP2A antibody, MAP2B antibody, MAP2C antibody, Microtubule associated protein 2 antibody, Microtubule-associated protein 2 antibody, MTAP2\_HUMAN antibody

#### Target/Specificity

Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells. Microtubules are associated with a family of proteins called microtubule associated proteins (MAPs), which includes the protein  $\tau$  (tau) and a group of proteins referred to as MAP1, MAP2, MAP3, MAP4 and MAP5 (Kindler & Gardner 1994). MAP2 is made up of two ~280 kDa bands referred to as MAP2a and MAP2b. A third lower molecular weight form, MAP2C and MAP2D, corresponds to a pair of protein bands running at ~70 kDa on SDS-PAGE gels. All these MAP2 forms are derived from a single gene by alternate transcription, and all share a C-terminal sequence which includes either three or four microtubule binding peptide sequences, which are very similar to those found in the related microtubule binding protein  $\tau$  (tau). MAP2 isoforms are expressed only in neuronal cells and specifically in the perikarya and dendrites of these cells. MAP2C and MAP2D are expressed earlier in development than the MAP2a and MAP2b isoforms, so that this antibody is a more useful marker of neuronal development. MAP2 has been recently shown to be the specific receptor for the neurosteroid pregnenolone (FontaineLenore V. et al., 2006).

#### Format

Protein G Purified

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

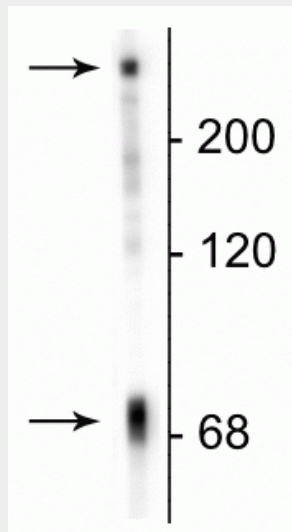
Blue Ice

### Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody - Protocols

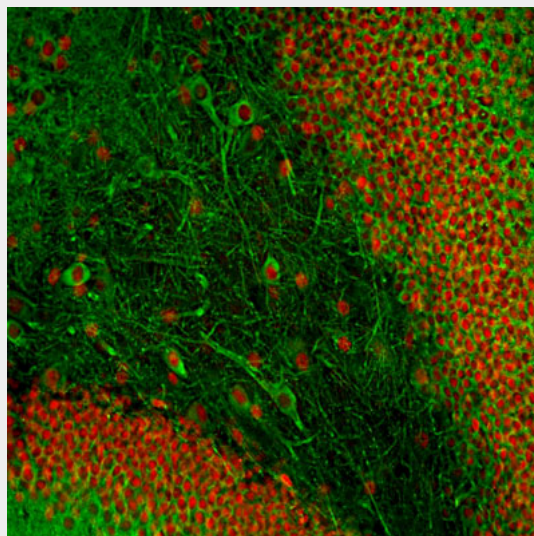
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody - Images



Western blot of neonatal rat brain lysate showing specific immunolabeling of the ~70 kDa MAP2C/D proteins and the ~280 kDa MAP2A/B proteins.



Immunofluorescence of a section of adult rat hippocampus section stained with Anti-MAP2C (cat. 1101-MAP2C, green, 1:5,000) and an anti-FOX2 antibody (red). Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45  $\mu$ M, and free-floating sections were stained with above antibodies. The anti-MAP2C labels all MAP2 protein isotypes expressed in neuronal perikarya and dendrites.

### **Anti-Microtubule Associated Protein 2 C/D (MAP2C/D) Antibody - Background**

Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells. Microtubules are associated with a family of proteins called microtubule associated proteins (MAPs), which includes the protein  $\tau$  (tau) and a group of proteins referred to as MAP1, MAP2, MAP3, MAP4 and MAP5 (Kindler & Gardner 1994). MAP2 is made up of two  $\sim$ 280 kDa bands referred to as MAP2a and MAP2b. A third lower molecular weight form, MAP2C and MAP2D, corresponds to a pair of protein bands running at  $\sim$ 70 kDa on SDS-PAGE gels. All these MAP2 forms are derived from a single gene by alternate transcription, and all share a C-terminal sequence which includes either three or four microtubule binding peptide sequences, which are very similar to those found in the related microtubule binding protein  $\tau$  (tau). MAP2 isoforms are expressed only in neuronal cells and specifically in the perikarya and dendrites of these cells. MAP2C and MAP2D are expressed earlier in development than the MAP2a and MAP2b isoforms, so that this antibody is a more useful marker of neuronal development. MAP2 has been recently shown to be the specific receptor for the neurosteroid pregnenolone (FontaineLenore V. et al., 2006).