

For Research Use Only

# MAP2 Polyclonal antibody

Catalog Number: 17490-1-AP

228 Publications



## Basic Information

### Catalog Number:

17490-1-AP

### Size:

150ul, Concentration: 750 µg/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG11580

### GenBank Accession Number:

BC038857

### GeneID (NCBI):

4133

### UNIPROT ID:

P11137

### Full Name:

microtubule-associated protein 2

### Calculated MW:

200 kDa

### Observed MW:

280 kDa, 70-85 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:5000-1:50000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:2500-1:10000

IF 1:50-1:500

## Applications

### Tested Applications:

WB, IP, IF, FC, IHC, ELISA

### Cited Applications:

WB, IF, FC, IHC

### Species Specificity:

human, mouse, rat

### Cited Species:

human, goat, rat, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB : SH-SY5Y cells, rat brain tissue, mouse brain tissue

IP : SH-SY5Y cells, mouse brain tissue

IHC : mouse brain tissue, human gliomas tissue, human brain tissue

IF : rat brain tissue, iPS cells, mouse brain tissue

## Background Information

MAP2 (microtubule-associated protein 2) is a cytoskeleton protein abundant in brain and has important role in neuronal morphogenesis. Multiple high MW and low MW MAP2 isoforms are expressed within proximal segment of axons, dendrites, and cell bodies. The expression of MAP2 is regulated in both a tissue- and developmentally specific manner. The 280 kDa MAP2B is present throughout rat brain development, and the slightly larger MAP2A appears first during the end of the second week of postnatal life. MAP2C, composed of several bands of about 70 kDa, is present during early brain development, and largely disappears from the mature brain except for the retina, olfactory bulb, and cerebellum. In addition, some isoforms with lower MW around 50-60 kDa also exist. MAP2 antibodies have been widely used to mark the neuron or dendrite formation. This antibody can recognize both high MW and low MW isoforms of MAP2.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ji-Qiang Fu	30264483	CNS Neurosci Ther	IF
Minghao Yao	31355388	Biomater Sci	WB
Shengliang Liu	25247595	PLoS One	IF

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

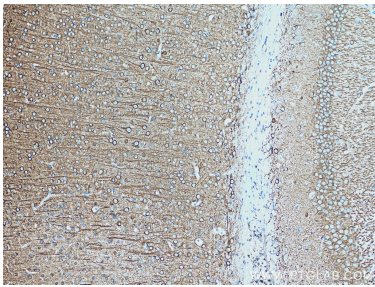
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

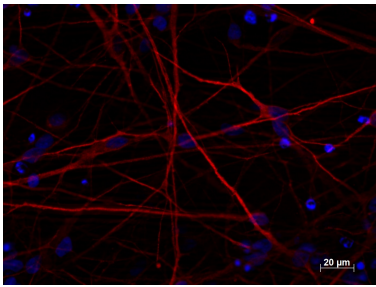
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

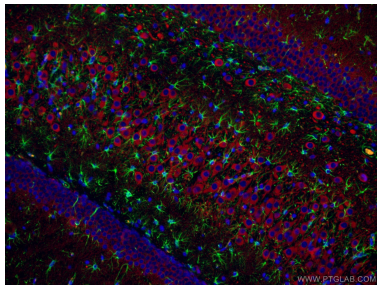
Selected Validation Data



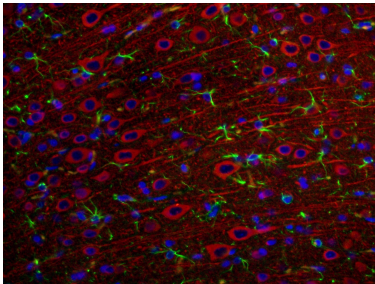
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



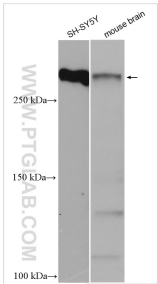
Immunofluorescent staining of MAP2 (17490-1-AP, 1:250 dilution) with 4% PFA fixed control hiPSC derived neuronal cultures (35 days old). (RED MAP2; Blue: DAPI). Provided by BioTalentum Ltd., Hungary.



Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using 17490-1-AP (MAP2 antibody) at dilution of 1:100 and CoraLite594-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). The section was co-stained with 60190-1-Ig (GFAP antibody, green).



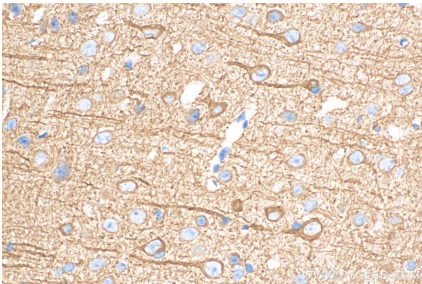
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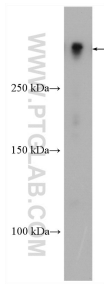
Various lysates were subjected to SDS PAGE followed by western blot with 17490-1-AP (MAP2 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



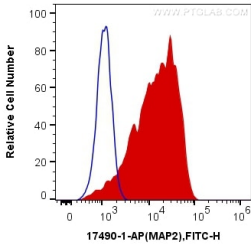
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



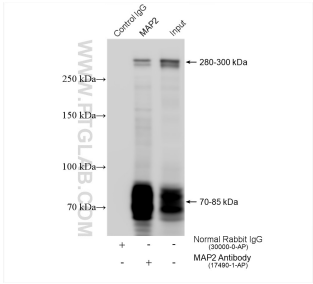
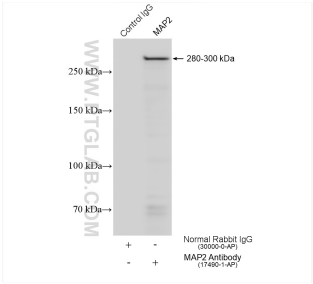
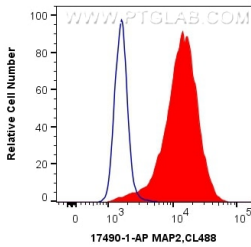
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



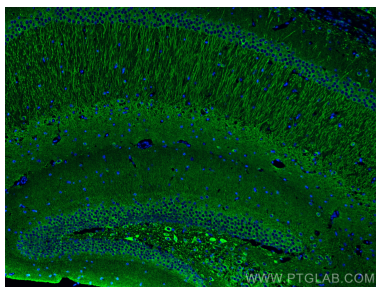
rat brain tissue were subjected to SDS PAGE followed by western blot with 17490-1-AP (MAP2 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



1X10<sup>6</sup> SH-SY5Y cells were intracellularly stained with 0.2 ug Anti-Human MAP2 (17490-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100.



1X10<sup>6</sup> Neuro-2a cells were intracellularly stained with 0.4 ug Anti-Human MAP2 (17490-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



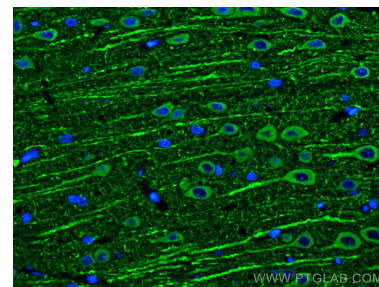
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using MAP2 antibody (17490-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

IP result of anti-MAP2 (IP:17490-1-AP, 4ug; Detection:17490-1-AP 1:8000) with mouse brain tissue lysate 1280 ug.



Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using MAP2 antibody (17490-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

IP result of anti-MAP2 (IP:17490-1-AP, 4ug; Detection:17490-1-AP 1:10000) with SH-SY5Y cells lysate 1240 ug.



Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using MAP2 antibody (17490-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).