

For Research Use Only

MAP2 Polyclonal antibody

Catalog Number: 17490-1-AP

307 Publications



Basic Information

Catalog Number:

17490-1-AP

Concentration:

750 ug/ml

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 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:2500-1:10000

IF-P: 1:50-1:500

IF-Fro: 1:50-1:500

IF/ICC: 1:125-1:500

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, IF-P, IF-Fro, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF, ICC-IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, monkey, goat

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,

IF-P: rat brain tissue, mouse brain tissue

IF-Fro: mouse brain tissue, rat brain tissue

IF/ICC: iPS cells,

FC (Intra): Neuro-2a cells,

Background Information

MAP2 (microtubule-associated protein 2) is a cytoskeleton protein abundant in the brain and has an important role in neuronal morphogenesis. Multiple high MW and low MW MAP2 isoforms are expressed within the 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
Yunfei Chen	32966240	Aging (Albany NY)	ICC-IF

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

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

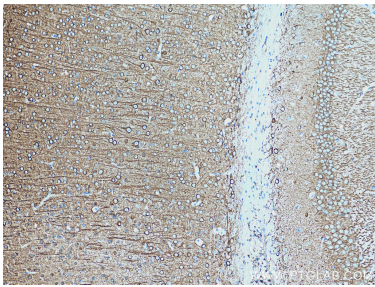
T: 4006900926

E: Proteintech-CN@ptglab.com

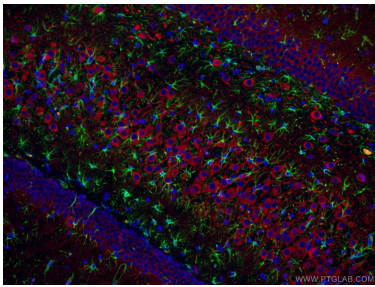
W: ptgcn.com

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

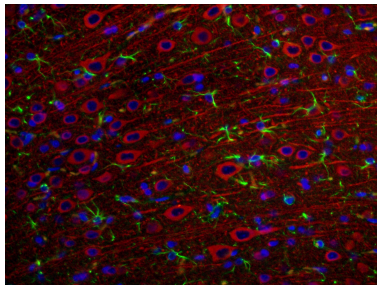
Selected Validation Data



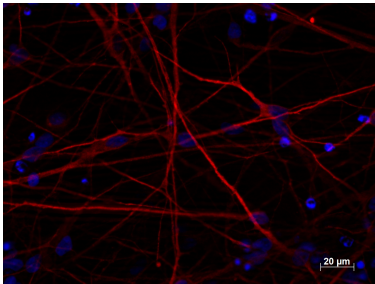
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



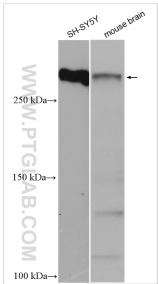
Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using 17490-1-AP (MAP2 antibody) at dilution of 1:100 and CoraLite594-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). The section was co-stained with 60190-1-Ig (GFAP antibody, green).



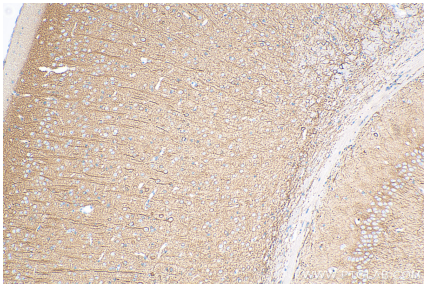
Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using 17490-1-AP (MAP2 antibody) at dilution of 1:100 and CoraLite594-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). The section was co-stained with 60190-1-Ig (GFAP antibody, green).



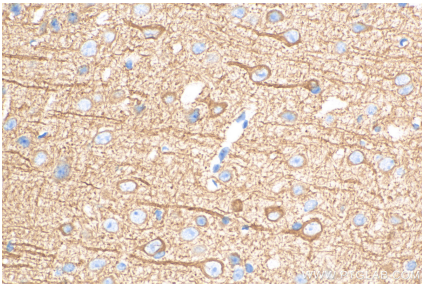
Immunofluorescent staining of MAP2 (17490-1-AP, 1:250 dilution) with 4% PFA fixed control hiPSC derived neuronal cultures (35 days old). (RED MAP2; Blue: DAPI). Provided by BioTalentum Ltd., Hungary.



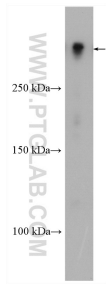
Various lysates were subjected to SDS PAGE followed by western blot with 17490-1-AP (MAP2 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



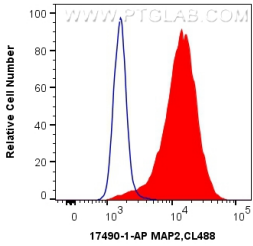
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



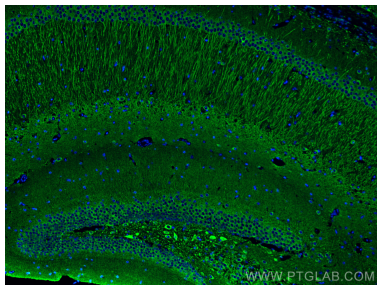
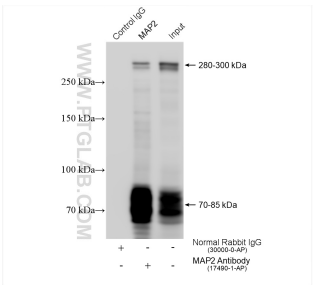
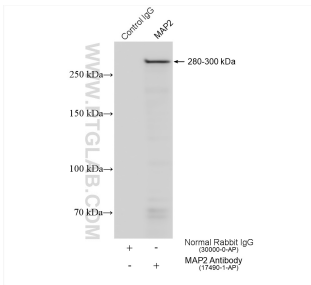
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 17490-1-AP (MAP2 antibody) at dilution of 1:5000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



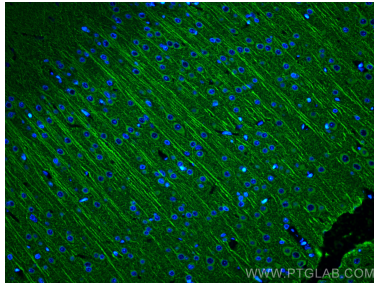
rat brain tissue were subjected to SDS PAGE followed by western blot with 17490-1-AP (MAP2 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



1X10⁶ 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).

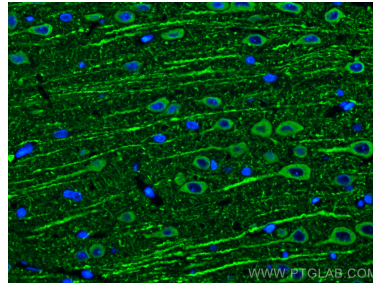


IP result of anti-MAP2 (IP:17490-1-AP, 4ug;
Detection:17490-1-AP 1:8000) with mouse brain
tissue lysate 1280 ug.



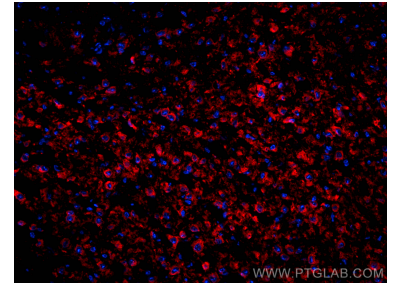
Immunofluorescent analysis of (4% PFA) fixed rat
brain tissue using MAP2 antibody (17490-1-AP) at
dilution of 1:200 and CoraLite® 488-Conjugated
AffiniPure Goat Anti-Rabbit IgG(H+L).

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

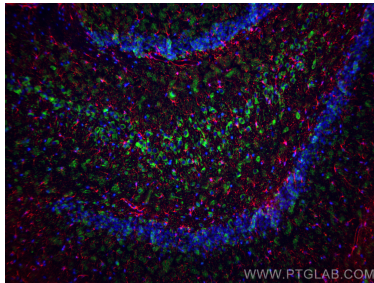


Immunofluorescent analysis of (4% PFA) fixed rat
brain tissue using MAP2 antibody (17490-1-AP) at
dilution of 1:200 and CoraLite® 488-Conjugated
AffiniPure Goat Anti-Rabbit IgG(H+L).

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).



Immunofluorescent analysis of (4% PFA) fixed
frozen OCT-embedded mouse brain tissue using
MAP2 antibody (17490-1-AP) at dilution of 1:200
and CoraLite® 594-Conjugated AffiniPure Goat
Anti-Rabbit IgG(H+L) (SA00013-4).



Immunofluorescent analysis of (4% PFA) fixed
frozen OCT-embedded rat brain tissue using MAP2
antibody (17490-1-AP) at dilution of 1:200 and
CoraLite® 488-Conjugated Goat Anti-Rabbit
IgG(H+L) (SA00013-2), GFAP antibody (60190-1-Ig,
Clone: 4B2E10, red).