abcam

Product datasheet

Anti-MAP2 antibody ab5392

★★★★★ 63 Abreviews 682 References 7 Images

Overview

Product name	Anti-MAP2 antibody
Description	Chicken polyclonal to MAP2
Host species	Chicken
Tested applications	**Suitable for:** ICC, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat
Immunogen	Recombinant fragment corresponding to Human MAP2. Mix of recombinant human constructs of projection domain sequences, amino acids 235-1588.
Positive control	IHC-P: Rat cerebellum tissue. ICC: Rat E20 cultured cortical neuron-glial cells, rat cortical neurons, rat cortical neurons and glia in mixed tissue culture and mouse neurons. WB: Adult rat brain, Embryonic E20 rat brain and Adult mouse brain lysates.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	Preservative: 0.032% Sodium azide Constituent: PBS
Purification notes	Lipid extraction from egg yolk, followed by ammonium sulphate precipitation.
Clonality	Polyclonal
Isotype	IgY

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab5392 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC	★★★★★ **(4)**	1/5000 - 1/10000.
IHC-P	★★★★★ **(13)**	1/10000.
WB	★★★★☆ **(6)**	1/20000 - 1/100000. This 280kDa band corresponds to the high molecular weight MAP2a and MAP2b isoforms. Also detects 2 bands at approximately 70 kDa, corresponding to MAPc, since the 70kDa bands are transcripts from the same gene and correspond to the C-terminus of the 280kDa bands.

Target

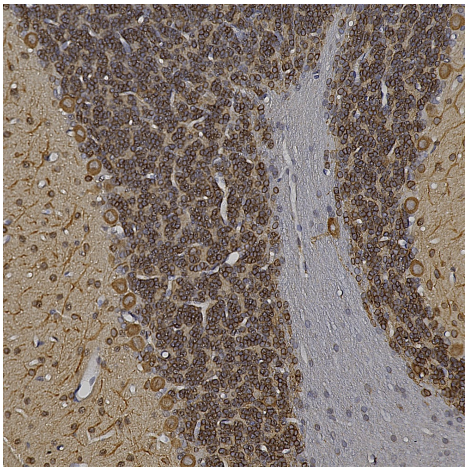
Function The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules.

Sequence similarities Contains 3 Tau/MAP repeats.

Post-translational modifications Phosphorylated at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (MARK1 or MARK2), causing detachment from microtubules, and their disassembly (By similarity). Isoform 2 is probably phosphorylated by PKA at Ser-323, Ser-354 and Ser-386 and by FYN at Tyr-67.

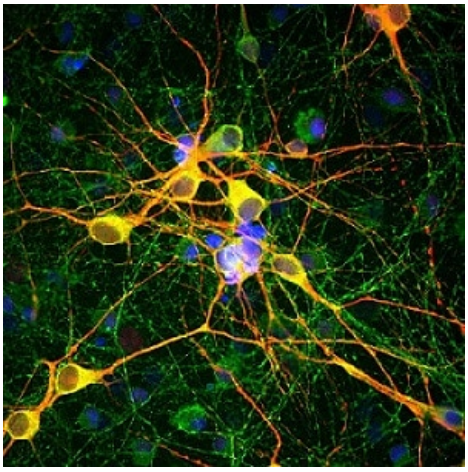
Cellular localization Cytoplasm, cytoskeleton.

Images



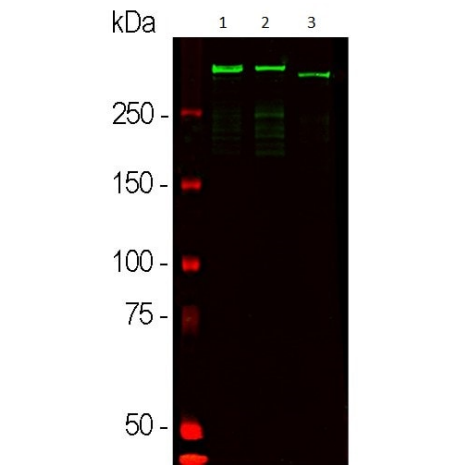
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody (ab5392)

Chromogenic Immunostaining of a formalin fixed paraffin embedded rat cerebellum section with chicken pAb to MAP2A/B dilution 1/10000, detected in DAB (brown) following the ABC method. Hematoxylin (blue) was used as the counterstain. ab5392 detects neuronal cells, specifically their perikarya and dendrites. Note the prominent staining of Purkinje cells and their dendrites in the molecular layer and staining of the much smaller granule neurons in the granular layer.



Immunocytochemistry - Anti-MAP2 antibody (ab5392)

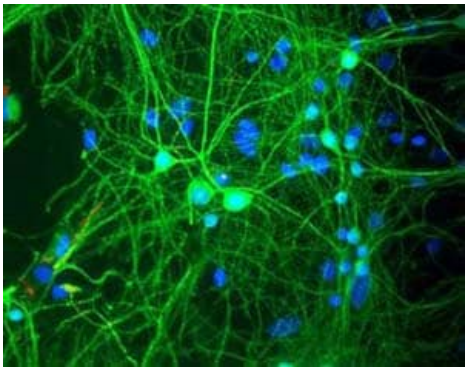
Rat E20 cultured cortical neuron-glial cells stained for MAP2 (red) using ab5392 at 1/10000 dilution for ICC/IF. Tau is detected with a mouse monoclonal anti-Tau antibody (green). The nuclear counter stain is DAPI (blue). Overlap of MAP2 and Tau staining results in an orange-yellow color.



Western blot - Anti-MAP2 antibody (ab5392)

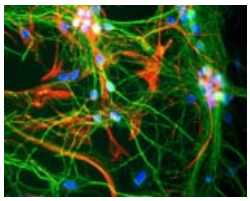
All lanes : Anti-MAP2 antibody (ab5392) at 1/50000 dilution

Lane 1 : Adult rat brain lysate
Lane 2 : Embryonic E20 rat brain lysate
Lane 3 : Adult mouse brain lysate



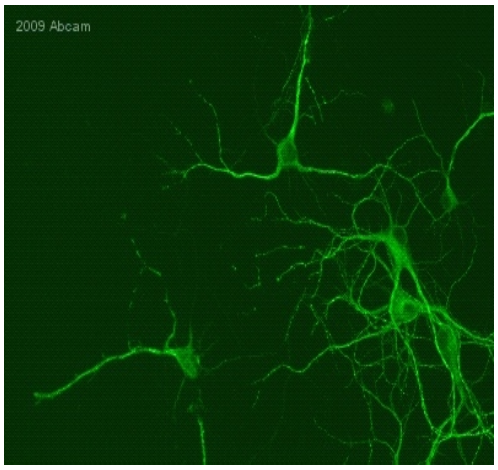
Immunocytochemistry - Anti-MAP2 antibody (ab5392)

ab5392 at a dilution of 1/10000, staining MAP 2 (green) in tissue cultured rat cortical neurons by immunofluorescence. Nuclei are stained blue with Dapi.



Immunocytochemistry - Anti-MAP2 antibody (ab5392)

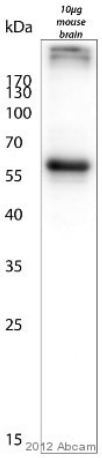
Rat cortical neurons and glia in mixed tissue culture stained with ab5392 (Chicken antibody to MAP2) (green)(1:30 000), a mouse monoclonal antibody to GFAP (red) and nuclei of all cells stained with Hoechst dye (blue).



Immunocytochemistry - Anti-MAP2 antibody (ab5392)

This image is courtesy of an anonymous Abreview

ab5392 staining MAP2 in mouse neurons by immunocytochemistry/ immunofluorescence. Cells were PFA fixed and permeabilized in 0.4% Triton X-100 prior to blocking in 5% serum for 1 hour at 25°C. The primary antibody was diluted 1/10000 and incubated with the sample for 20 hours at 21°C. Alexa fluor® 488 goat polyclonal to chicken IgY, diluted 1/400, was used as the secondary antibody.



Western blot - Anti-MAP2 antibody (ab5392)

This image is courtesy of an anonymous Abreview

Anti-MAP2 antibody (ab5392) at 1/10000 dilution + Mouse brain lysate - post nuclear supernatant at 10 µg

Secondary

HRP-conjugated rabbit anti-chicken IgY at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Observed band size: 280,70 kDa

Exposure time: 1 minute

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