


Product datasheet

Anti-MAP2 antibody [EPR19691] ab183830

Recombinant RabMAb

★★★★★ 3 Abreviews 5 References 14 Images

Overview

Product name	Anti-MAP2 antibody [EPR19691]
Description	Rabbit monoclonal [EPR19691] to MAP2
Host species	Rabbit
Tested applications	Suitable for: IHC-P, IHC-Fr, ICC
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Common marmoset 
Immunogen	Recombinant fragment within Mouse MAP2 aa 650-1000. The exact sequence is proprietary. Database link: P20357
Positive control	IHC-P: Human cerebral cortex and pancreas tissues; Mouse cerebral cortex and stomach tissues; Rat hippocampus tissue. IHC-Fr: Mouse cortex tissue. ICC: Mouse primary neural mix culture, rat primary neural/glia cells
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR19691
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab183830** in the following tested applications.

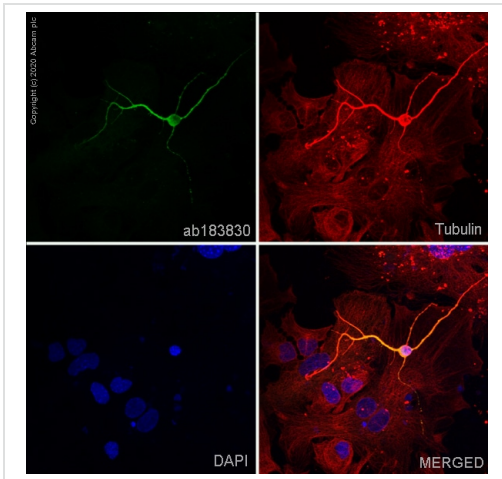
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★	1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/100. Antigen retrieval: Heated citrate solution (10mM citrate PH 6.0 + 0.05% Tween-20)
ICC		1/500 - 1/1000.

Target

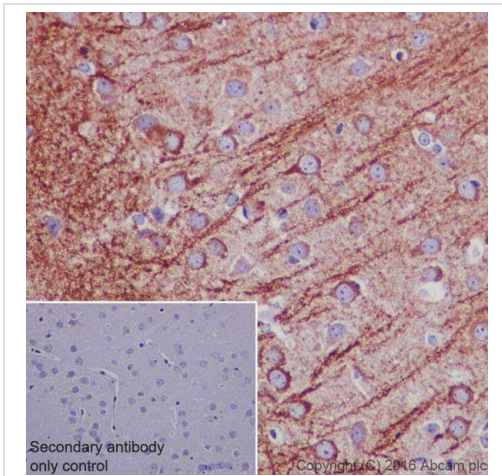
Function	The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules.
Sequence similarities	Contains 3 Tau/MAP repeats.
Post-translational modifications	Phosphorylated at serine residues in K-X-G-S 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



Immunocytochemistry - Anti-MAP2 antibody
[EPR19691] (ab183830)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural mix culture cells labelling Map2 with ab183830 at 1/500 dilution, followed by [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

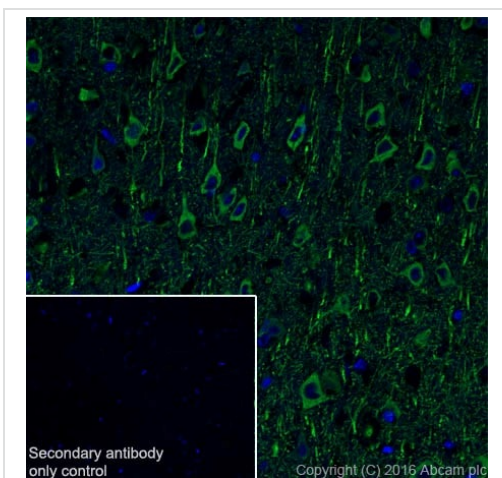


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody
[EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on neurons of mouse cerebral cortex is observed [PMID 15233758, PMID 19136970]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

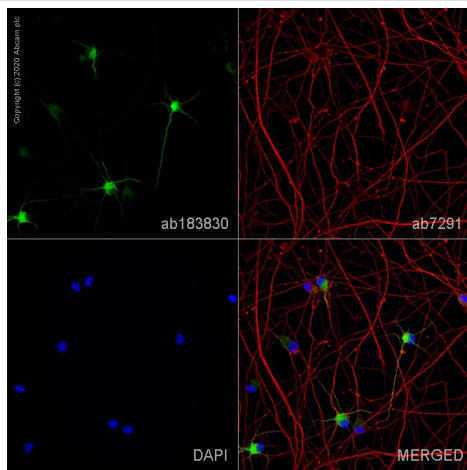
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse Cortex tissue labeling MAP2 with ab183830 at 1/100 dilution, followed by Goat anti-Rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Cytoplasmic staining on neurons of mouse Cortex is observed. The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab150077](#) secondary antibody at 1/1000 dilution.

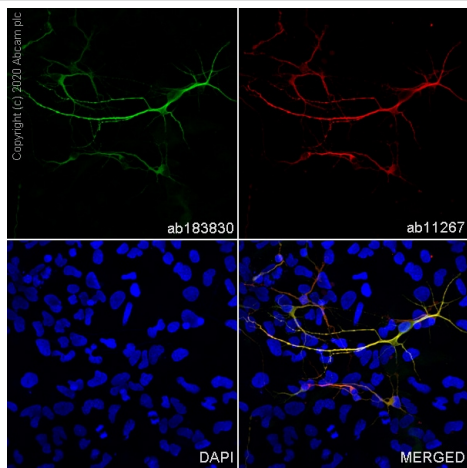


Immunocytochemistry - Anti-MAP2 antibody
[EPR19691] (ab183830)

Immunofluorescence staining of MAP2 using ab183830 in ioNEURONS/glut cells (Human iPSC-Derived Glutamatergic Neurons, [ab259259](#)), which were differentiated for 11 days post induction.

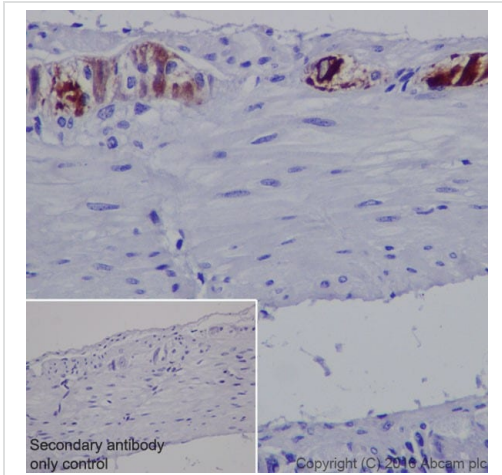
The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab183830 at 1 µg/ml and [ab7291](#), Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with [ab150081](#), Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and [ab150120](#), Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Images were acquired with the Perkin Elmer Operetta HCA and a maximum intensity projection of confocal sections is shown.



Immunocytochemistry - Anti-MAP2 antibody
[EPR19691] (ab183830)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat primary neural/glia cells labelling MAP2 with ab183830 at 1/1000 dilution, followed by [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing positive staining in rat primary neuron cell. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. [ab11267](#) Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution (4 µg/mL) followed by [ab150120](#) Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (2 µg/mL) (Red). The Nuclear counterstain was DAPI (Blue).

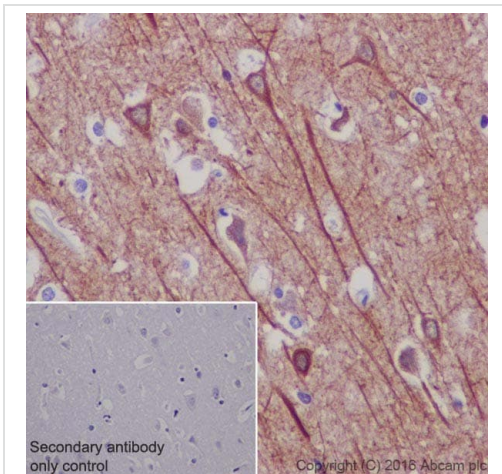


Immunohistochemical analysis of paraffin-embedded Mouse stomach tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on myenteric nerve plexus of mouse stomach is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

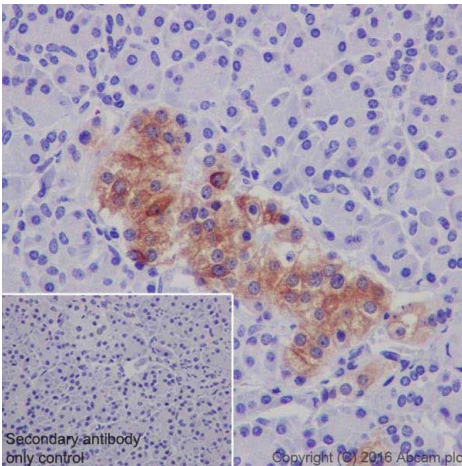


Immunohistochemical analysis of paraffin-embedded Human cerebral cortex tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on neurons of human cerebral cortex is observed [PMID 15233758, PMID 19136970]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

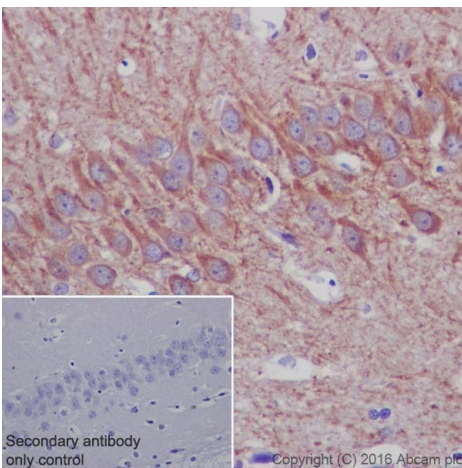


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on human pancreas islet is observed [PMID: 9341200]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

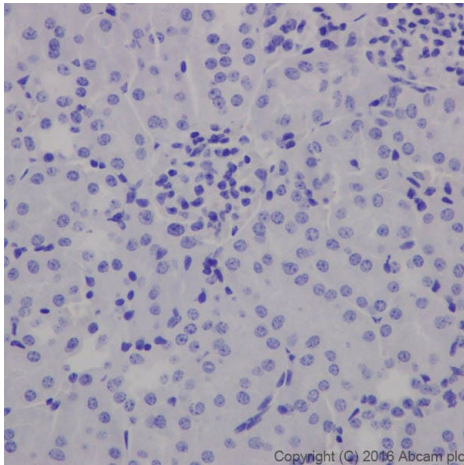


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Rat hippocampus tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on neurons of rat hippocampus was observed [PMID 15233758, PMID 19136970]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

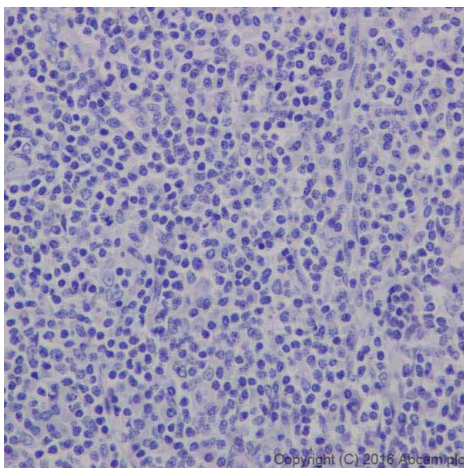
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on mouse kidney. Counter stained with Hematoxylin.

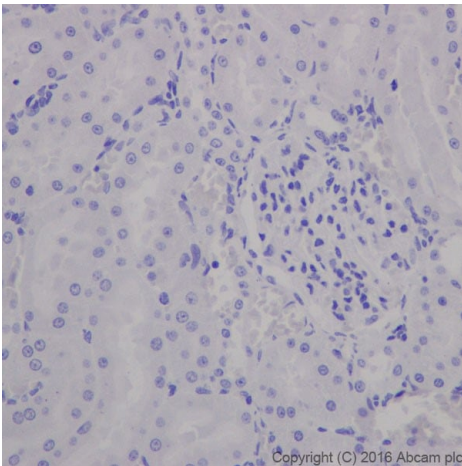
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on Human tonsil. Counter stained with Hematoxylin.

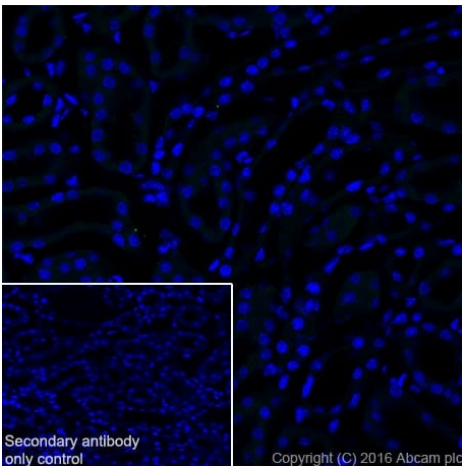
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on rat kidney is observed. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

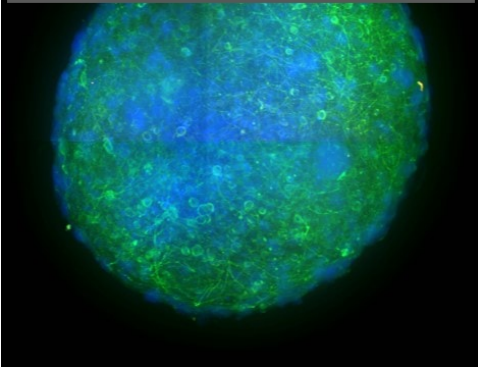


Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse kidney tissue labeling MAP2 with ab183830 at 1/100 dilution, followed by Goat anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Negative staining on mouse kidney. The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 secondary antibody at 1/1000 dilution.

MAP2 antibody with 3D Cell Culture Clearing Kit ab243299 and neuronal spheroid cell culture



Immunocytochemistry - Anti-MAP2 antibody [EPR19691] (ab183830)

MAP2 antibody ab183830 was used with 3D Cell Culture Clearing Kit [ab243299](#) to penetrate, stain and clear a 3D neuronal spheroid cell culture. Blue: DAPI, Green: MAP2.

Learn more about [3D cell culture and tissue clearing kits, reagents, and protocols](#) designed to make it easier to stain 3D cell cultures and thick tissue sections and get more data from each valuable tissue section.

To use this antibody with clearing, use 3D Cell Culture Clearing Kit [ab243299](#). We recommend a starting dilution of 1:150, and also using Goat Anti-Rabbit IgG H&L AlexaFluor488 ([ab150077](#)) at a dilution of 1:400.

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