# abcam

### Product datasheet

# Anti-MAP2 antibody [EPR19691] ab183830

יולצעבע RabMAb

★★★★★ 4 Abreviews 20 References 画像数 16

#### 製品の概要

製品名 Anti-MAP2 antibody [EPR19691]

製品の詳細 Rabbit monoclonal [EPR19691] to MAP2

由来種 Rabbit

アプリケーション 適用あり: ICC/IF, IHC-P, IHC-Fr, Flow Cyt (Intra)

種交差性 交差種: Mouse, Rat, Human

交差が予測される動物種: Common marmoset 4

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール Flow Cyt: Mouse brain cell.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- 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**.

#### 製品の特性

製品の状態 Liquid

保存方法 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.

バッファー pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

精製度 Protein A purified

ポリモノ モノクローナル クローン名 EPR19691

アイソタイプ ΙgG

**The Abpromise guarantee Abpromise保証は、**次のテスト済みアプリケーションにおけるab183830の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		1/500 - 1/1000.
IHC-P	<b>★★★★★</b> (4)	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)
Flow Cyt (Intra)		1/500.

## ターゲット情報

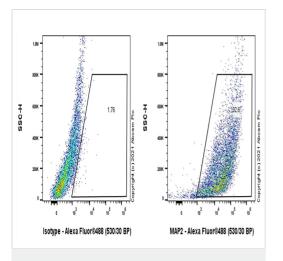
機能	The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules.	
配列類似性	Contains 3 Tau/MAP repeats.	
翻訳後修飾	Phosphorylated at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (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.

Cytoplasm, cytoskeleton.

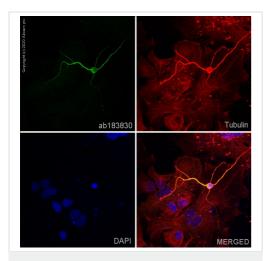
#### 画像

細胞内局在



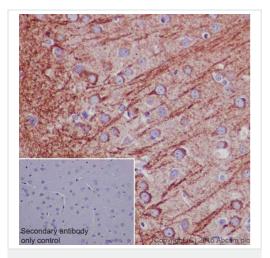
Flow Cytometry (Intracellular) - Anti-MAP2 antibody [EPR19691] (ab183830)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse brain cells cells labelling MAP2 with ab183830 at 1/500 dilution (0.1ug)/ Right compared with a Rabbit monoclonal lgG (ab172730) / Left isotype control. A Goat anti rabbit lgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



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

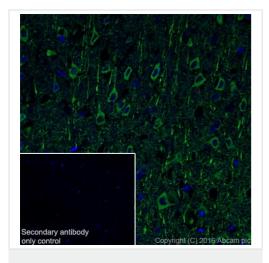
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural mix culture cells labelling Map2 with ab183830 at 1/500 dilution, followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal scanning Z step 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 paraffinembedded sections) - Anti-MAP2 antibody
[EPR19691] (ab183830)

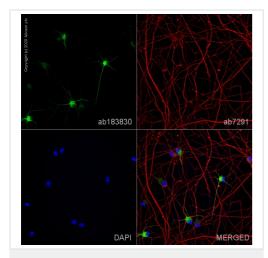
Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on neurons of mouse cerebral cortex is observed [PMID 15233758, PMID 19136970]. Counter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

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



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<sup>®</sup> 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.

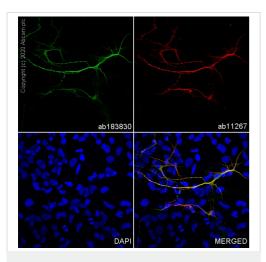


Immunocytochemistry/ Immunofluorescence - Anti-MAP2 antibody [EPR19691] (ab183830)

Immunofluorescence staining of MAP2 using ab183830 in ioGlutamatergic Neurons (Human iPSC-Derived Glutamatergic Neurons, <u>ab259259</u>), which were differentiated for 11 days post induction.

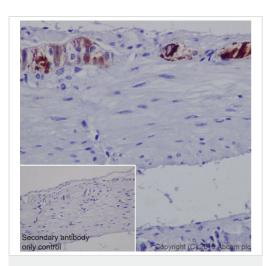
The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab183830 at 1 µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with ab150081, Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150120, Goat Anti-Mouse lgG 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/ Immunofluorescence - Anti-MAP2 antibody [EPR19691] (ab183830)

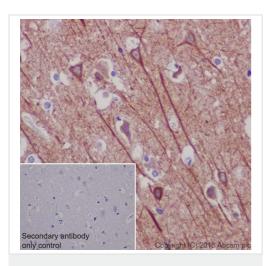
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat primary neural/glia cells labelling MAP2 with ab183830 at 1/1000 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2  $\mu$ g/mL) (Green). Confocal image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



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

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.

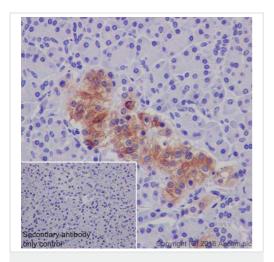


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MAP2 antibody
[EPR19691] (ab183830)

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.

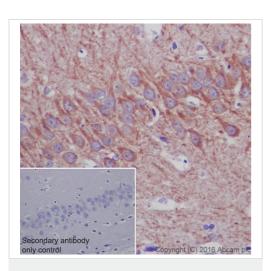
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded 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.

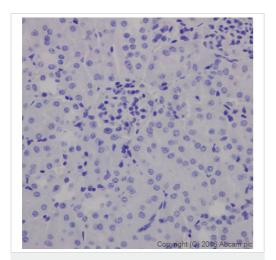


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MAP2 antibody
[EPR19691] (ab183830)

Immunohistochemical analysis of paraffin-embedded Rat hippocampus tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit lgG 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.

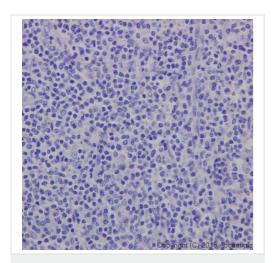
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is <u>ab97051</u> at 1/500 dilution.

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



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

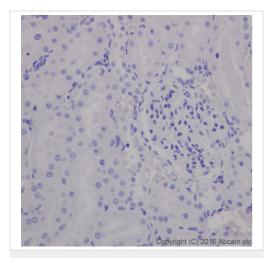
Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on mouse kidney. Counter stained with Hematoxylin.



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

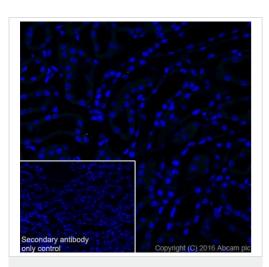
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on Human tonsil. Counter stained with Hematoxylin.

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



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

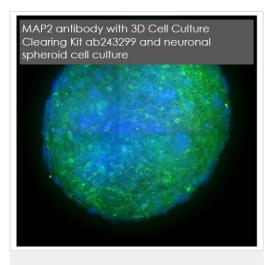
Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling MAP2 with ab183830 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on rat kidney is observed. Counter stained with Hematoxylin.



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<sup>®</sup> 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.

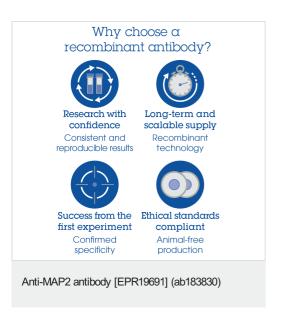


Immunocytochemistry/ Immunofluorescence - Anti-MAP2 antibody [EPR19691] (ab183830)

MAP2 antibody ab183830 was used with 3D Cell Culture Clearing Kit <u>ab243299</u> to penetrate, stain and clear a 3D neuronal spheroid cell culture. Blue: DAPI, Green: MAP2.

Learn more about <u>3D cell culture and tissue clearing kits</u>, <u>reagents</u>, <u>and protocols</u> 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 lgG H&L AlexaFluor488 (**ab150077**) at a dilution of 1:400.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.co.jp/abpromise">https://www.abcam.co.jp/abpromise</a> or contact our technical team.

#### Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors