

Product datasheet

Anti-MAP2 antibody [RM1010] - Neuronal Marker ab281588

Recombinant RabMAb

[1 References](#) [8 Images](#)

Overview

Product name	Anti-MAP2 antibody [RM1010] - Neuronal Marker
Description	Rabbit recombinant multiclonal [RM1010] to MAP2 - Neuronal Marker
Host species	Rabbit
Tested applications	Suitable for: ICC, IHC-Fr, Flow Cyt (Intra), WB Unsuitable for: IHC-P or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	This product was produced with the following immunogens: Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: SK-N-BE, IMR-32, Neuro-2a and PC-12 whole cell lysate; Mouse E12.5 brain, brain and cerebellum tissue lysates; Rat brain and cerebellum tissue lysates. IHC-Fr: Mouse cerebellum tissue; Rat cerebellum tissue. ICC: Mouse primary neural/glia cells. Flow Cyt: Mouse primary neuron cells; Neuro-2a cells.
General notes	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	Preservative: 0.01% Sodium azide Constituents: 59.94% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Recombinant Multiclonal
Clone number	RM1010
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab281588 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		1/2000.
IHC-Fr		1/100. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)
Flow Cyt (Intra)		1/500.
WB		1/1000. Detects a band of approximately 70, 280 kDa (predicted molecular weight: 199 kDa).

Application notes Is unsuitable for IHC-P or IP.

Target

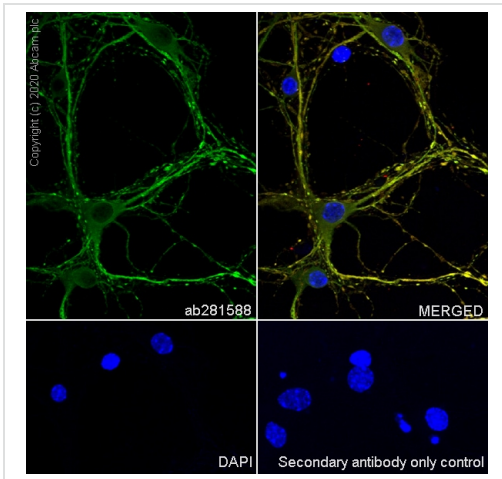
Function The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules.

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.

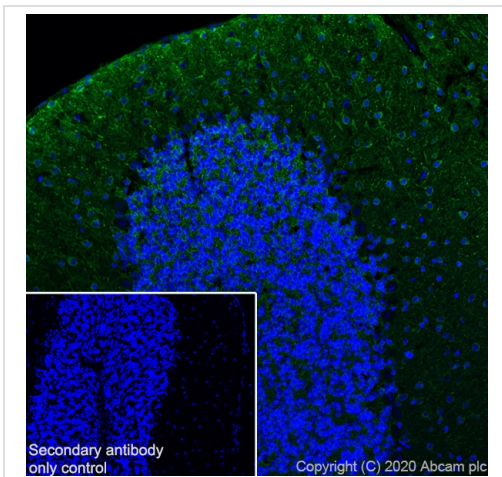
Images



Immunocytochemistry - Anti-MAP2 antibody
[RM1010] - Neuronal Marker (ab281588)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural/glia cell cells labelling MAP2 with 281588 at 1/2000 (0.276 ug/ml) dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green) Confocal image showing cytoplasmic staining in mouse primary neuron. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection is observed. **ab11267** Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution, followed by **ab150120** Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

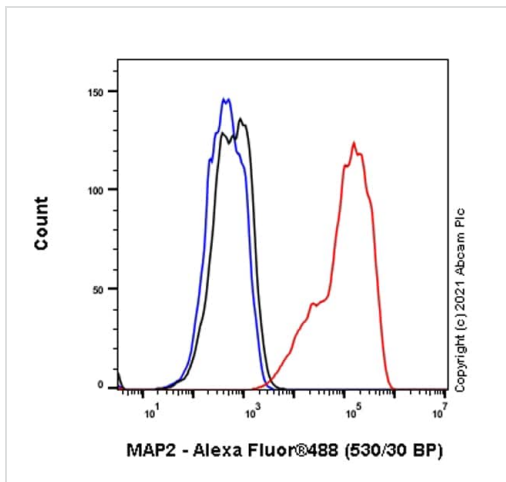


Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebellum tissue labeling MAP2 with 281588 at 1/100 (5.52 ug/ml) dilution followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse cerebellum is observed. The nuclear counterstain was DAPI (Blue).

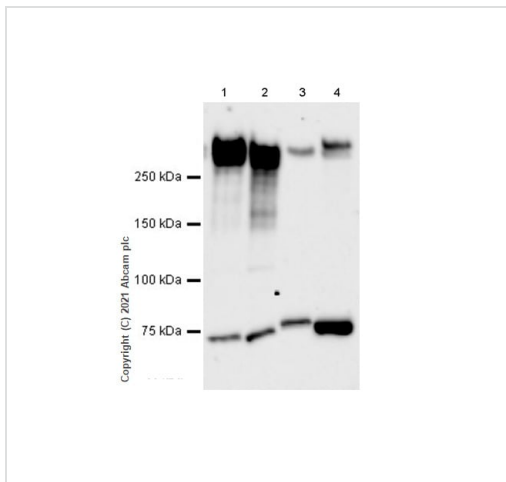
Secondary antibody control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Flow Cytometry (Intracellular) - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized Mouse primary neuron cells labelling MAP2 with 281588 at 1/500 dilution (0.1 ug) (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

All lanes : Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588) at 1/1000 dilution

Lane 1 : SK-N-BE(2) (Human neuroblastoma neuroblast) whole cell lysate

Lane 2 : IMR-32 (Human neuroblastoma neuroblast) whole cell lysate

Lane 3 : Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysate

Lane 4 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

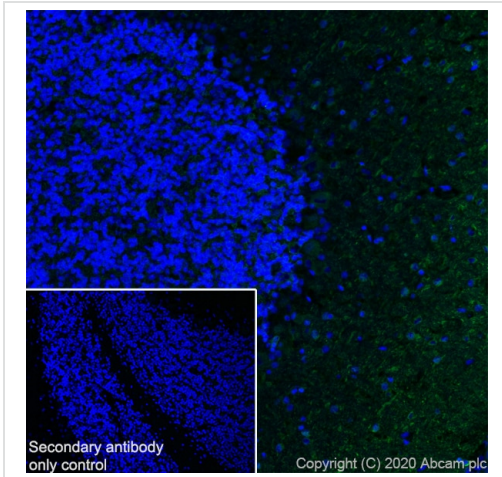
Predicted band size: 199 kDa

Observed band size: 280,70 kDa

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

We recommend that samples are not boiled after adding loading buffer as this may cause protein aggregates.

Exposure time: 48 seconds.

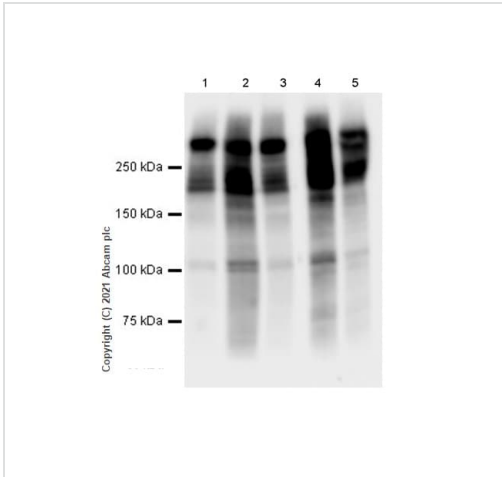


Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebellum tissue labeling MAP2 with 281588 at 1/100 (5.52 ug/ml) dilution followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on rat cerebellum is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Western blot - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

All lanes : Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588) at 1/1000 dilution

Lane 1 : Mouse E12.5 brain lysate

Lane 2 : Mouse brain lysate

Lane 3 : Mouse cerebellum lysate

Lane 4 : Rat brain lysate

Lane 5 : Rat cerebellum lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

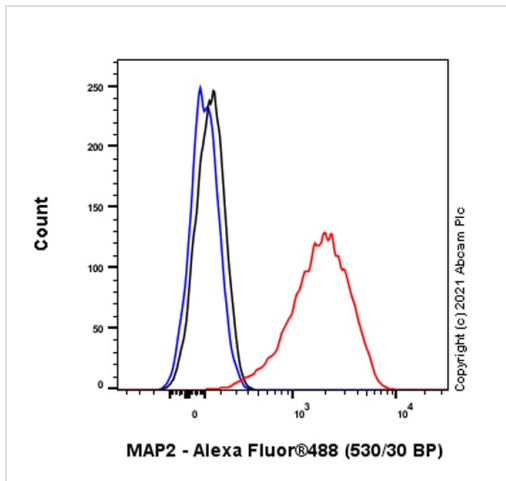
Predicted band size: 199 kDa

Observed band size: 70-280 kDa

Blocking and diluting buffer and concentration: 5% NFD/MTBST.

We recommend that samples are not boiled after adding loading buffer as this may cause protein aggregates.





Exposure time: 3 seconds.



Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized Neuro-2a (Mouse neuroblastoma neuroblast) cells labelling MAP2 with 281588 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor[®] 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.

Flow Cytometry (Intracellular) - Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-MAP2 antibody [RM1010] - Neuronal Marker (ab281588)

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