

## Product datasheet

### Anti-MAP2 antibody [EPR22036-127] ab221693

Recombinant RabMAb

[1 References](#) [7 Images](#)

#### Overview

<b>Product name</b>	Anti-MAP2 antibody [EPR22036-127]
<b>Description</b>	Rabbit monoclonal [EPR22036-127] to MAP2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, ICC/IF, Flow Cyt (Intra), IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Flow Cyt: Mouse brain cell. IP: SK-N-BE cell.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22036-127
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab221693 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-Fr		1/1000.
ICC/IF		1/1000.
Flow Cyt (Intra)		1/500.
IP		1/30.

## 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.

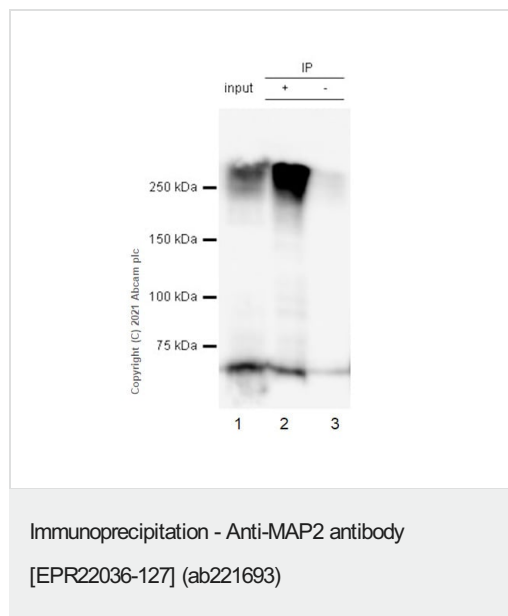
### Post-translational modifications

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



MAP2 was immunoprecipitated from 0.35 mg SK-N-BE(2) (Human neuroblastoma neuroblast) whole cell lysate 10 ug with ab221693 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab221693 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: SK-N-BE(2) (Human neuroblastoma neuroblast) whole cell lysate 10 ug

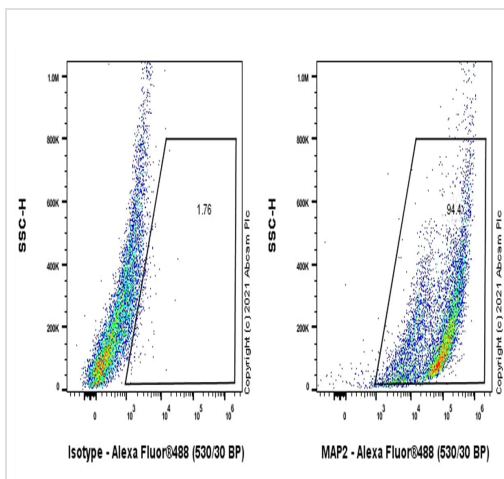
Lane 2: ab221693 IP in SK-N-BE(2) whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab221693 in SK-N-BE(2) whole cell lysate

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

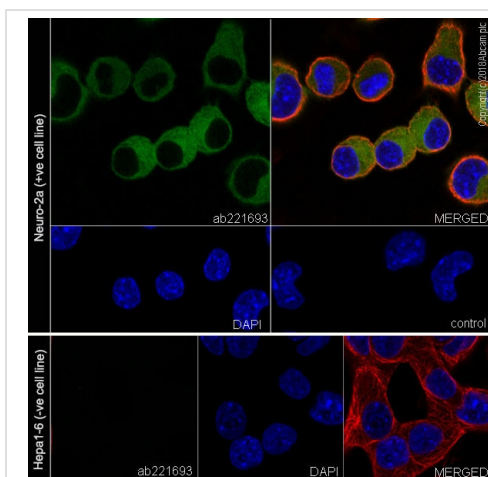
Exposure time: 8 seconds

Fresh made lysate is required to minimize protein degradation.



Flow Cytometry (Intracellular) - Anti-MAP2 antibody  
[EPR22036-127] (ab221693)

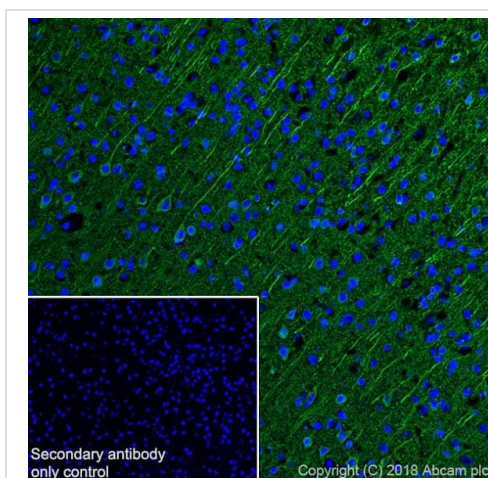
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse brain cells cells labelling MAP2 with ab221693 at 1/500 dilution (0.1ug)/ Right compared with a Rabbit monoclonal IgG (**ab172730**) / Left isotype control. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-MAP2 antibody [EPR22036-127] (ab221693)

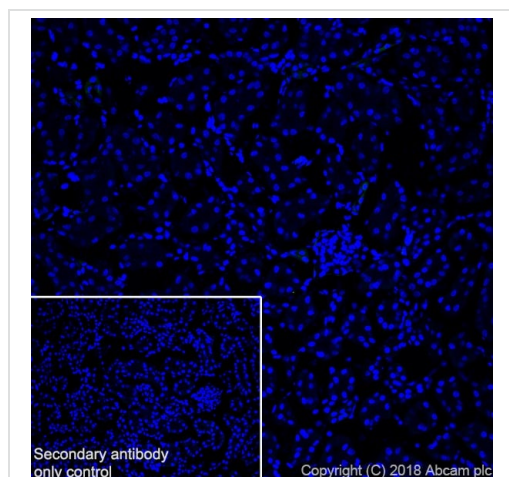
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Neuro-2a (Mouse neuroblastoma neuroblast) cells labeling MAP2 with ab221693 at 1/1000 dilution, followed by AlexaFluor®488 Goat anti-Rabbit (**ab150077**) secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in Neuro-2a cells is observed. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) was used as a counterstain at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

**Negative control:** Hepa1-6 cells (PMID: 7001466)



Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [EPR22036-127] (ab221693)

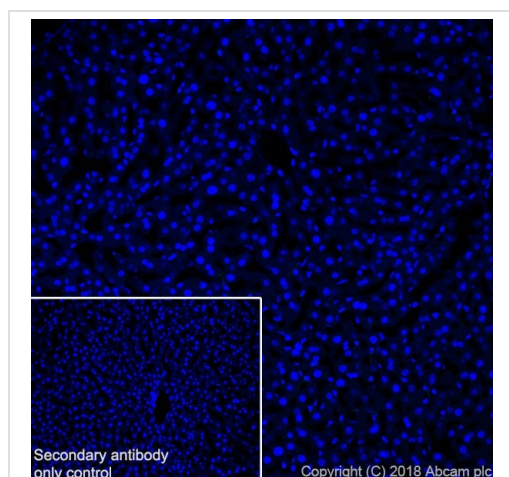
Immunohistochemical analysis of frozen 4% paraformaldehyde-fixed 0.2% Triton X-100 permeabilized mouse cerebrum tissue labeling MAP2 (Green) using ab221693 at 1/1000 dilution, followed by an AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution. Cytoplasmic staining on mouse cerebrum (PMID: 22479190) is observed. The nuclear counterstain is DAPI (Blue). Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [EPR22036-127] (ab221693)

Immunohistochemical analysis of frozen 4% paraformaldehyde-fixed 0.2% Triton X-100 permeabilized mouse kidney tissue labeling MAP2 using ab221693 at 1/1000 dilution, followed by an AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution. **Negative control:** No staining on mouse kidney (PMID: 7001466, PMID: 2423532) is observed. The nuclear counterstain is DAPI (Blue).

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







Immunohistochemistry (Frozen sections) - Anti-MAP2 antibody [EPR22036-127] (ab221693)

Immunohistochemical analysis of frozen 4% paraformaldehyde-fixed 0.2% Triton X-100 permeabilized mouse liver tissue labeling MAP2 using ab221693 at 1/1000 dilution, followed by an AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution. **Negative control:** No staining on mouse liver (PMID: 7001466, PMID: 2423532). is observed. The nuclear counterstain is DAPI (Blue).

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

Why choose a recombinant antibody?

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

Anti-MAP2 antibody [EPR22036-127] (ab221693)

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

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