



## Rabbit Anti-MAP2 antibody

SL23816R

<b>Product Name:</b>	MAP2
<b>Chinese Name:</b>	微管相关蛋白2抗体
<b>Alias:</b>	Microtubule-associated protein 2; DKFZp686I2148; Dendrite specific MAP; DKFZp686I2148; MAP 2; MAP-2; MAP2A; MAP2B; MAP2C; Microtubule associated protein 2; Mtap 2; MAP2_HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
<b>Applications:</b>	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	70/201kDa
<b>Cellular localization:</b>	cytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human MAP2:1651-1750/1827
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	MAP2 is the major microtubule associated protein of brain tissue. There are three forms of MAP2; two are similarly sized with apparent molecular weights of 280 kDa (MAP2a and MAP2b) and the third with a lower molecular weight of 70 kDa (MAP2c). In the newborn rat brain, MAP2b and MAP2c are present, while MAP2a is absent. Between postnatal days 10 and 20, MAP2a appears. At the same time, the level of MAP2c drops

by 10-fold. This change happens during the period when dendrite growth is completed and when neurons have reached their mature morphology. MAP2 is degraded by a Cathepsin D-like protease in the brain of aged rats. There is some indication that MAP2 is expressed at higher levels in some types of neurons than in other types. MAP2 is known to promote microtubule assembly and to form side-arms on microtubules. It also interacts with neurofilaments, actin, and other elements of the cytoskeleton.

**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.

**Subcellular Location:**

Cytoplasm, cytoskeleton (Probable).

**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. MAP2A/c is phosphorylated. Phosphorylated upon DNA damage, probably by ATM or ATR. Isoform MAP2c is phosphorylated by FYN at Tyr-67.

**Similarity:**

Contains 3 Tau/MAP repeats.

**SWISS:**

P11137

**Gene ID:**

4133

**Database links:**

[Entrez Gene: 4133](#)Human

[Entrez Gene: 25595](#)Rat

[Oimim: 157130](#)Human

[SwissProt: P11137](#)Human

[SwissProt: P20357](#)Mouse

[SwissProt: P15146](#)Rat

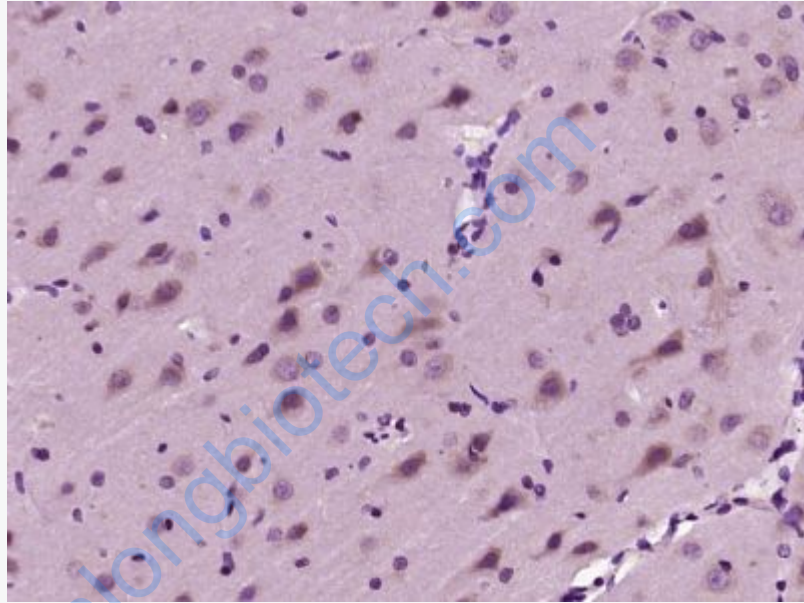
[Unigene: 368281](#)Human

[Unigene: 256966](#)Mouse

**Important Note:**

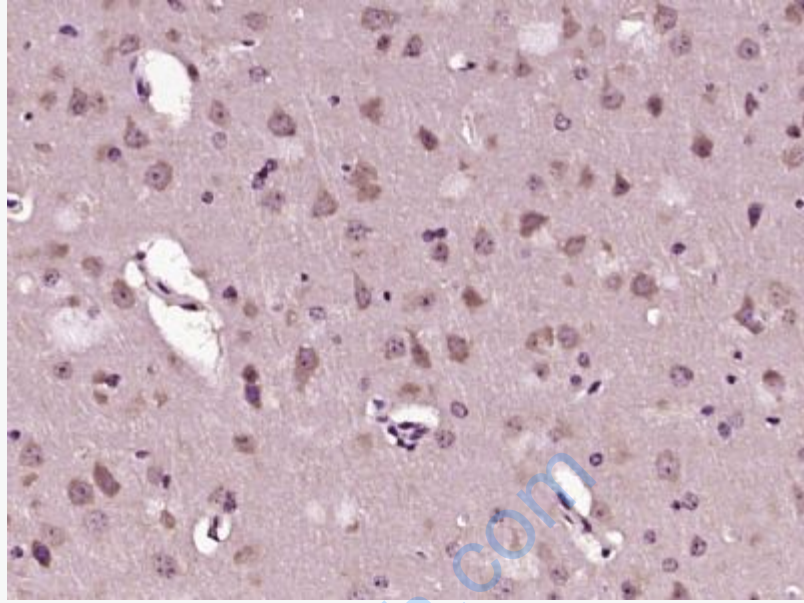
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微管相关蛋白 2 (MAP-2) 是一种磷蛋白质, 在正常脑组织中, 主要存在于神经元的胞体、树突和树突棘, 是脑内最丰富的蛋白之一。MAP-2 在其调节微管的聚合作用和微管的稳定性以及对神经元轴突和树突的发生、延长、稳定和突触可塑性调节具有重要作用。



Picture:

Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MAP2) Polyclonal Antibody, Unconjugated (SL23816R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MAP2) Polyclonal Antibody, Unconjugated (SL23816R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.