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Phospho-MAP2(S1539) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3668a

Product Information

Application	DB, E
Primary Accession	P11137
Other Accession	P15146, P20357
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15202
Calculated MW	199526

Additional Information

Gene ID	4133
Other Names	Microtubule-associated protein 2, MAP-2, MAP2
Target/Specificity	This MAP2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S1539 of human MAP2.
Dilution	DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-MAP2(S1539) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAP2
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.

Cellular Location	Cytoplasm, cytoskeleton. Cell projection, dendrite {ECO:0000250|UniProtKB:P20357}

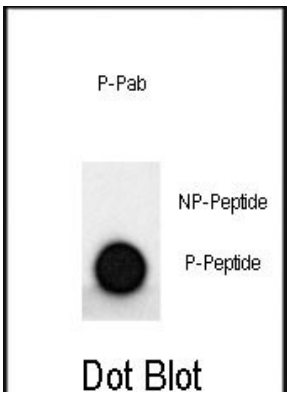
Background

MAP2 is the major microtubule associated protein of brain tissue. There are three forms of MAP2; two are similarily 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.

References

Maddodi,N., et.al., J. Biol. Chem. 285 (1), 242-254 (2010)
Krishnan,C., et.al., Am. J. Surg. Pathol. 33 (11), 1695-1704 (2009)

Images



Dot blot analysis of MAP2 Antibody (S1539) Pab (Cat. #AP3668a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.