NEUROMICS

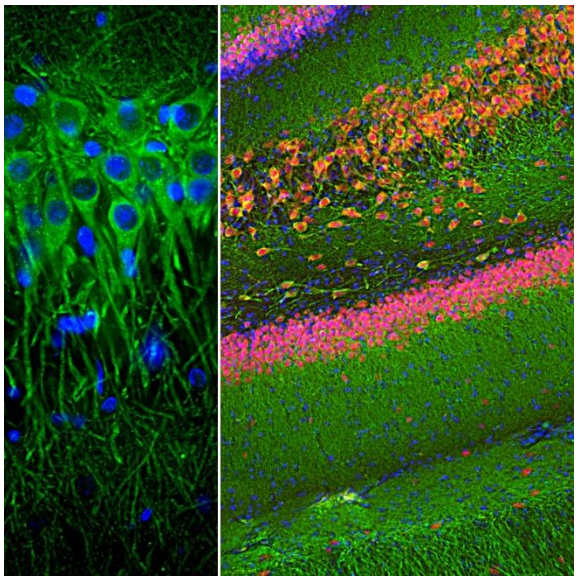
Microtubule Associated Protein 2 Data Sheet

Catalog Number:	MO22208	**Host:**	Mouse
Product Type:	Mouse Monoclonal IgG1	**Species Reactivity:**	Human, Rat, Mouse, Cow
Immunogen Sequence:	Full length MAP2A/B purified from bovine spinal cord	**Format:**	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Applications:	Immunofluorescence: 1:1,000 Immunohistochemistry: 1:1,000 Western Blot: 1:10,000		
Storage:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

Application Notes

Description/Data

Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells and are associated with a family of proteins called microtubule associated proteins (MAPs). MAPs play a crucial role in the regulation of microtubule dynamics and interactions in vivo. MAP2 was originally named as one of the higher molecular weight MAPs with an SDS-PAGE molecular weight of about 280kDa. MAP2 isoforms are expressed only in neurons, specifically in the perikarya and dendrites of these cells. Antibodies to MAP2 isotypes are therefore excellent markers of neuronal dendrites and are useful for identifying neurons in cell culture and sections.



This antibody was raised against purified full length bovine brain MAP2 and the epitope was mapped to amino acids 631-1056 of the human sequence.

Image: Immunofluorescent analysis of a rat hippocampus section stained with mouse mAb to MAP2, MO22208, dilution 1:2,000 in green, and costained with rabbit pAb to FOX3/NeuN, dilution 1:2,000 in red. Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45µM, and free-floating sections were stained with above antibodies. MO22208 labels MAP2 protein in the perikarya and dendrites of most neurons while the FOX3/NeuN antibody selectively stains nuclei and proximal soma of neuronal cells.

FOR RESEARCH USE ONLY

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