

Cat. No:	MAB-94097
Conjugate:	Unconjugated
Size:	100 ug
Clone:	4H5
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG1
Reactivity:	Hu, Ms,Rt, Cw
Applications:	Western blot: 1:5,000. ICC/IF and IHC: 1:500- 1:1,000.
Molecular Weight:	~250 kDa by SDS-PAGE
Purification:	Purified

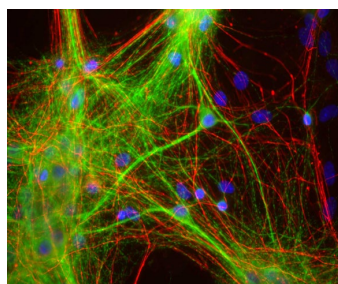
Background:

Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells. They are polymerized from a dimeric subunit made of one a subunit and one b tubulin subunit. Microtubules are associated with a family of proteins called microtubule associated proteins (MAPs), which includes the protein t (tau) and a group of proteins referred to as MAP1, MAP2, MAP3, MAP4 and MAP5. MAP2 is made up of two ~280kDa apparent molecular weight bands referred to as MAP2a and MAP2b. A third lower molecular weight form, usually called MAP2c, corresponds to a pair of protein bands running at ~70kDa on SDS-PAGE gels. All these MAP2 forms are derived from a single gene by alternate transcription, and all share a C-terminal sequence which includes either three or four microtubule binding peptide sequences, which are very similar to those found in the related microtubule binding protein t (a.k.a. MAP-tau or tau). MAP2 isoforms are expressed only in neuronal cells and specifically in the perikarya and dendrites of these cells. Antibodies to MAP2 are therefore excellent markers of neuronal cells, their perikarya and neuronal dendrites. In contrast MAP-t (MAP-tau) is found predominantly but not exclusively in neuronal axons. The HGNC name for this protein is MAP2. Antibody characteristics: MAB-94097 clone 4H5 is a mouse IgG1 class antibody with a k light chain. MCA-4H5 recognizes MAP2 specifically both in western blots and in immunocytochemical experiments. MAB-94097 clone 4H5 has been tested to react with MAP2 from human, cow, mouse.

Form:	Liquid
Buffer:	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM Na ₃
Storage:	Stable at 4°C for one year, for longer term store at -20°C



Western blot of rat brain extract probed



Mixed neuron and glia cultures stained

with MAB-94097 clone 4H5; note that the strong single band running at about 280 kDa corresponds to MAP2.

with MAB-94097 Clone 4H5 (green), and rabbit antibody to neurofilament NF-H (red) and DNA (blue). MAB-94097 Clone 4H5 antibody reveals strong cytoplasmic staining for of dendrites and perikarya, which does not overlap with the NF-H antibody, which primarily binds to axons.

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