

Cat. No:	MAB-83910
Conjugate:	Unconjugated
Size:	100 ug
Clone:	2C4
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG1
Immunogen:	Full length recombinant human MAP2D protein Prot-r-MAP2D expressed in and purified from E. coli.
Reactivity:	Hu Rt Ms
Applications:	Western Blot: 1:5,000-1:10,000 Immunohistochemistry: 1:5,000-10,000 Immunofluorescence: 1:5,000-10,000 Immunocytochemistry: 1:5,000-10,000
Molecular Weight:	MAP2A/B ~280 kDa, MAP2C/D ~70kDa by SDS-PAGE
Purification:	Purified
Background:	Microtubules are 25nm diameter protein rods found in most 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. There is a single mammalian MAP2 gene which may generate two high molecular weight proteins of ~280kDa on SDS-PAGE named MAP2A and MAP2B and multiple lower molecular weight forms usually named MAP2C and MAP2D which run on SDS-PAGE gels at 60-70kDa. The lower molecular weight forms are found in neurons early in development, but as the animal matures they are replaced by the higher molecular weight forms. MAP2 isoforms are expressed only in neurons in perikaryal and dendrites, so MAP2 antibodies are useful for identifying neurons in cell culture and sectioned material. MAP2C and D contain an "intrinsically unstructured region", one of the prototypes for this widespread type of protein sequence. Since MAP2C and D are expressed earlier in development than MAP2A and B this antibody can be used for monitoring early neuronal development, though it is also useful as a general marker for neurons and dendrites in mature tissues. This antibody was made against a recombinant full length form of human MAP2D and was found to bind all four MAP2 gene products meaning that it binds to the shared core region of these molecules.
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

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