Chicken polyclonal antibody to Microtubule Associated Protein 2 (MAP2)

Catalogue No.:	C-1382-50
Description:	Microtubules are 25nm diameter protein rods found in most kinds of eukarytic 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 (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 on neuronal cells, their perikarya and neuronal dendrites.
Batch No.:	See product label
Unit size:	50 uL
Antigen:	Bovine MAP2 isolated from brain by the GTP microtubule cycling method.
Isotype:	IgY
Other Names:	Microtubule-associated protein 2; MAP-2; MAP2;
Accession:	P11137 MAP2_HUMAN;
Produced in:	Chicken
Purity:	IgY fraction
Applications:	Western Blotting (WB), Immunocytochemistry (ICC) and Immunohistochemistry (IHC). Suggested dilutions are: 1:10,00-1:20,000 (WB), 1:5,000-1:10,000 (ICC, IHC). Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	The specificity of this antibody has been confirmed by IC.
Antibody Against:	Microtubule Associated Protein 2
Cross-reactivity:	Hu, Rat, Ms, Bov
Form:	Lyophilised from a solution containing PBS buffer pH 7.2-7.6, with 0.02% sodium azide as preservative.
Appearance:	White powder
Reconstitution:	Reconstitute in 50 uL sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	Store lyophilised antibody at 2-8C for up to 12 months after date of receipt. After reconstitution divide into undiluted aliquots and store at -20C for up to six months. Store at 2-8C short-term (up to 4 weeks). Avoid repetitive freeze/thaw cycles.
Expiry Date:	12 months after purchase, unopened.

FOR RESEARCH USE ONLY

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Specific References:

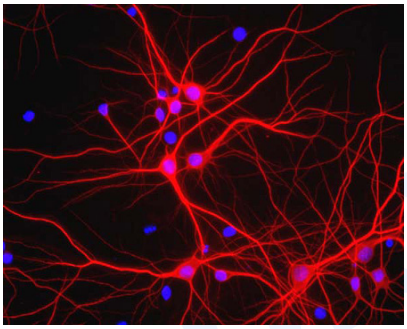
Iwata M et al. (2019) "Regulatory mechanisms for the axonal localization of tau protein in neurons." Mol Biol Cell. 30(19):2441-57. Application: ICC/IF Species: Mouse, rat

Duda JK et al. (2019) "The role of DLG-MAGUKs in mediating signaling specificity at the postsynaptic density." PhD Thesis. [Epub ahead of print]. Application: ICC/IF Species: Mouse

Awashti A et al. (2018) "Synaptotagmin-3 drives AMPA receptor endocytosis, depression of synapse strength, and forgetting." Science. 2018; [Epub ahead of print]. Application: IHC/ICC/IF Species: Mouse

Wolfes AC et al. (2016) "A novel method for culturing stellate astrocytes reveals spatially distinct Ca2+ signaling and vesicle recycling in astrocytic processes." J Gen Physiol. 2016; [Epub ahead of print]. Application: IF Species: Rat

Dziennis S et al. (2007) "Role of signal transducer and activator of transcription-3 in estradiol-mediated neuroprotection." J Neurosci. 2007; 27(27):7268-74. Application: IHC Species: Rat



View of mixed neuron/glial cultures stained with Chicken polyclonal antibody to Microtubule Associated Protein 2 C-1382-50 (red). The perikarya and dendrites of neurons are strongly and specifically stained with this antibody while the axons of the neurons and the processes of all other cell types in these cultures (astrocytes, oligodendrocytes, microglia, endothelia and fibroblasts) are all negative. Cell nuclei are visualized with DAPI DNA stain.

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