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ARG52328
anti-MAP2 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Chicken Polyclonal antibody recognizes MAP2
Tested Reactivity	Hu, Ms, Rat, Bov, Dog, Marmoset, Sheep
Tested Application	ICC/IF, IHC-FoFr , IHC-Fr, IHC-P, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	MAP2
Species	Bovine
Immunogen	Bovine MAP2 isolated from brain by the GTP microtubule cycling method
Conjugation	Un-conjugated
Alternate Names	MAP2A; Microtubule-associated protein 2; MAP2C; MAP2B; MAP-2

Application Instructions

Application table

Application	Dilution
ICC/IF	1:1000 - 1:5000
IHC-FoFr	1:1000 - 1:5000
IHC-Fr	1:1000 - 1:5000
IHC-P	1:1000 - 1:5000
WB	1:20000

Application Note

Specific for the ~ 280k MAP2 protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

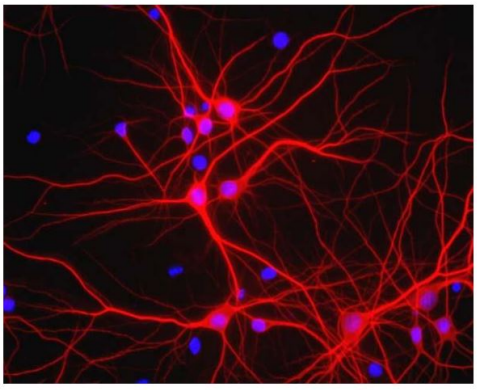
Form	Liquid
Purification	Total IgY fraction
Buffer	Total IgY fraction in PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

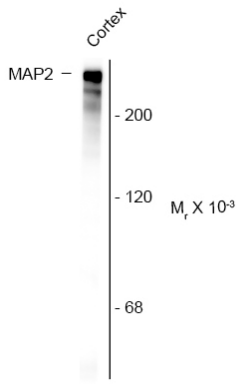
Gene Symbol	MAP2
Gene Full Name	microtubule associated protein 2
Background	Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells. They are polymerized from a dimeric subunit made of one a subunit and one b tubulin subunit. Microtubules are associated with a family of proteins called microtubule associated proteins (MAPs), which includes the protein τ (tau) and a group of proteins referred to as MAP1, MAP2, MAP3, MAP4 and MAP5 (Kindler & Gardner 1994). 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 τ (tau). MAP2 isoforms are expressed only in neuronal cells and specifically in the perikarya and dendrites of these cells. MAP2 has been recently shown to be the specific receptor for the neurosteroid pregnenolone (Fontaine-Lenore V. et al., 2006).
Highlight	Related Antibody Duos and Panels: ARG30009 NSC and Neuron Marker Antibody Duo (Nestin, MAP2) ARG30301 Neurite Marker Antibody Duo Related products: MAP2 antibodies; MAP2 Duos / Panels; Anti-Chicken IgY secondary antibodies; Related news: 14-3-3η as a promising target for the treatment of Major Depression Disorder Neuronal Development Marker Astrocyte-to-neuron conversion for Parkinson's disease treatment
Research Area	Controls and Markers antibody; Neuroscience antibody; Signaling Transduction antibody; Neuron Marker antibody; Mature Neuron Marker antibody; Neurite Marker antibody
Calculated Mw	200 kDa
PTM	Phosphorylated at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (MARK1 or MARK2), causing detachment from microtubules, and their disassembly (By similarity). Isoform 2 is probably phosphorylated by PKA at Ser-323, Ser-354 and Ser-386 and by FYN at Tyr-67. The interaction with KNDC1 enhances MAP2 threonine phosphorylation (By similarity).

Images



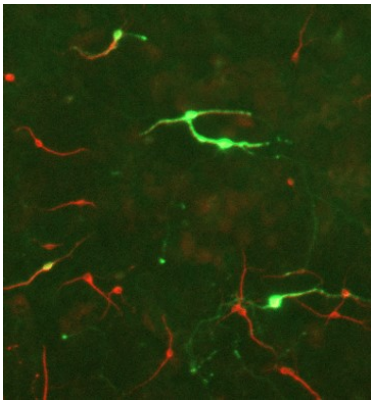
ARG52328 anti-MAP2 antibody ICC/IF image

Immunofluorescence: Mixed neuron/glial cultures. The perikarya and dendrites of neurons are strongly and specifically stained with ARG52328 anti-MAP2 antibody (red). Cell nuclei are visualized with DAPI DNA stain.



ARG52328 anti-MAP2 antibody WB image

Western blot: Rat cortex lysate stained with ARG52328 anti-MAP2 antibody showing specific immunolabeling of the ~ 280 kDa MAP2 protein.



ARG52328 anti-MAP2 antibody ICC/IF image

Immunofluorescence: E17 Rat midbrain mixed neuronal cultures stained with ARG52461 anti-Tyrosine Hydroxylase antibody (green) and ARG52328 anti-MAP2 antibody (red).