Anti-MAP2 Antibody, Clone AP20

Antibodies

Mouse monoclonal IgG1 antibody against human, mouse, rat MAP2 (microtubule-associated protein-2), unconjugated

Catalog	#60049	100 µg	0.5 mg/mL
	#60049.1	25 µg	0.5 mg/mL

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Product Description

The AP20 antibody clone reacts with MAP2 (microtubule-associated protein-2), a high molecular weight protein which plays an important role in brain neuronal microtubule assembly and interaction with other cytoskeletal elements and cytoplasmic organelles.The antibody localizes the high molecular weight forms of MAP2 namely MAP2a and MAP2b. MAP2 is a highly specific marker for neurons and is confined to the neuronal cell bodies and dendrites in the central nervous system. MAP2 is initially evenly distributed in cultured neuronal cells but eventually localizes to the developing dendrites.

Target Antigen Name:	MAP2 (Microtubule-Associated Protein-2)
Alternative Names:	DKFZp686I2148, MAP2A, MAP2B, MAP2C, Microtubule-associated protein 2
Gene ID:	4133 (human), 17756 (mouse), 25595 (rat)
Species Reactivity:	Human, Mouse, Rat, Chicken, Cow, Xenopus
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	AP20
Isotype:	IgG1
Immunogen:	Bovine brain microtubule protein
Conjugate:	Unconjugated

Applications

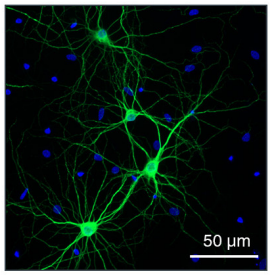
Verified:	ICC
Reported:	ICC, IF, IHC, WB

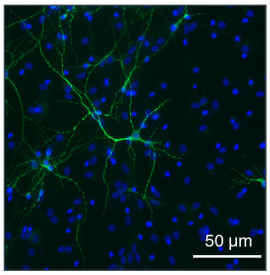
Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Aqueous buffer containing 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by column chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For immunocytochemistry and immunohistochemistry the suggested use of this antibody is ≤ 5 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application. For further instructions on how to use this antibody, refer to the Technical Manual: In Vitro Proliferation and Differentiation of Human Neural Stem and Progenitor Cells Using NeuroCult™ or NeuroCult™-XF (Document #28724) available on our website at www.stemcell.com.

Data





(A) E18 cortical rat neurons were cultured using NeuroCult™ SM1 Neuronal Culture Kit (Catalog #05712) on poly-L-ornithine and laminin-coated glass coverslips, then fixed and labeled with Anti-MAP2 Antibody, Clone AP20, followed by donkey anti-mouse IgG, Alexa Fluor® 488, and counterstained with DAPI.
(B) E18 cortical rat neurons were cultured using the NeuroCult™ NS-A Differentiation Kit (Rat; Catalog #05772) on poly-L-ornithine and laminin-coated glass coverslips, then fixed and labeled with Anti-MAP2 Antibody, Clone AP20, followed by donkey anti-mouse IgG, Alexa Fluor® 488, and counterstained with DAPI.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Yarchoan M et al. (2014) Abnormal serine phosphorylation of insulin receptor substrate 1 is associated with tau pathology in Alzheimer's disease and tauopathies. Acta Neuropathol 128(5): 679–89. (IHC)
2. Gonçalves N et al. (2013) Caffeine and adenosine A(2A) receptor inactivation decrease striatal neuropathology in a lentiviral-based model of Machado-Joseph disease. Ann Neurol 73(5): 655–66. (IHC)
3. Cai W et al. (2012) Rit GTPase regulates a p38 MAPK-dependent neuronal survival pathway. Neurosci Lett 531(2): 125–30. (WB)
4. Stahr A et al. (2012) Morg1(+/-) heterozygous mice are protected from experimentally induced focal cerebral ischemia. Brain Res 1482: 22–31.
5. Li B et al. (2008) Failure of neuronal maturation in Alzheimer disease dentate gyrus. J Neuropathol Exp Neurol 67(1): 78–84. (IHC, WB)
6. Fontaine-Lenoir V et al. (2006) Microtubule-associated protein 2 (MAP2) is a neurosteroid receptor. Proc Natl Acad Sci USA 103(12): 4711–6. (WB)