

MAP 2

Cat.No. 188 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 up to 1 : 1000 IHC: 1 : 250 up to 1 : 500 IHC-P/FFPE: 1 : 250 up to 1 : 500
Immunogen	Recombinant protein corresponding to AA 2 to 314 from human MAP2-4 hu (UniProt Id: P11137-4)
Reactivity	Reacts with: human (P11137), rat (P15146), mouse (P20357). Other species not tested yet.
Specificity	Specific for MAP 2; recognizes all four isoforms.
matching control	188-OP

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

There are two major classes of heat stable microtubule associated proteins (MAPs): **MAP 2**, and tau. Both protein classes are involved in the regulation of microtubule polymerization in cells. Four differentially regulated isoforms of MAP 2 have been described so far.

Selected References SYSY Antibodies

An increase in basal BDNF provokes hyperactivation of the Akt-mammalian target of rapamycin pathway and deregulation of local dendritic translation in a mouse model of Down's syndrome.

Troca-Marín JA, Alves-Sampaio A, Montesinos ML

The Journal of neuroscience : the official journal of the Society for Neuroscience (2011) 31 (26): 9445-55. **ICC, IHC**

TBC1D24 regulates axonal outgrowth and membrane trafficking at the growth cone in rodent and human neurons.

Aprile D, Fruscione F, Baldassari S, Fadda M, Ferrante D, Falace A, Buhler E, Sartorelli J, Represa A, Baldelli P, Benfenati F, et al.

Cell death and differentiation (2019) : **ICC; tested species: human**

Oxidative stress and altered mitochondrial protein expression in the absence of amyloid-β and tau pathology in iPSC-derived neurons from sporadic Alzheimer's disease patients.

Birnbaum JH, Wanner D, Gietl AF, Saake A, Kündig TM, Hock C, Nitsch RM, Tackenberg C

Stem cell research (2018) 27: 121-130. **ICC; tested species: human**

An immunoaffinity-based method for isolating ultrapure adult astrocytes based on ATP1B2 targeting by the ACSA-2 antibody.

Batiuk MY, de Vin F, Duqué SI, Li C, Saito T, Saido T, Fiers M, Belgard TG, Holt MG

The Journal of biological chemistry (2017) 292(21): 8874-8891. **IHC; tested species: mouse**

GABAB receptor constituents revealed by tandem affinity purification from transgenic mice.

Bartoi T, Rigbolt KT, Du D, Köhr G, Blagoev B, Kornau HC

The Journal of biological chemistry (2010) 285(27): 20625-33. **ICC**

Selected General References

The MAP2/Tau family of microtubule-associated proteins.

Dehmelt L, Halpain S

Genome biology (2005) 6(1): 204.

MAP2 and tau bind longitudinally along the outer ridges of microtubule protofilaments.

Al-Bassam J, Ozer RS, Safer D, Halpain S, Milligan RA

The Journal of cell biology (2002) 157(7): 1187-96.

Distribution of map2 in hippocampus and cerebellum of young and old rats by quantitative immunohistochemistry.

Di Stefano G, Casoli T, Fattoretti P, Gracciotti N, Solazzi M, Bertoni-Freddari C

The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society (2001) 49(8): 1065-6.

Age-dependent organotypic expression of microtubule-associated proteins (MAP1, MAP2, and MAP5) in rat brain.

Chauhan N, Siegel G

Neurochemical research (1997) 22(6): 713-9.

Variations in in vivo phosphorylation at the proline-rich domain of the microtubule-associated protein 2 (MAP2) during rat brain development.

Sánchez C, Díaz-Nido J, Avila J

The Biochemical journal (1995) 306 (Pt 2): 481-7.

Microtubule-associated proteins: a monoclonal antibody to MAP2 binds to differentiated neurons.

Izant JG, McIntosh JR

Proceedings of the National Academy of Sciences of the United States of America (1980) 77(8): 4741-5.