

MAP 2

Cat.No. 188 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 1000 IHC: 1 : 200 IHC-P/FFPE: 1 : 200 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	188-0P

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

Fc gamma receptors are expressed in the developing rat brain and activate downstream signaling molecules upon cross-linking with immune complex.
Stamou M, Grodzki AC, van Oostrum M, Wollscheid B, Lein PJ
Journal of neuroinflammation (2018) 15(1): 7. **ICC, FACS; tested species: rat**

Alternative 3' UTRs Modify the Localization, Regulatory Potential, Stability, and Plasticity of mRNAs in Neuronal Compartments.
Tushev G, Glock C, Heumüller M, Biever A, Jovanovic M, Schuman EM
Neuron (2018) 98(3): 495-511.e6. **ICC, IHC; tested species: mouse**

The metalloprotease ADAMTS4 generates N-truncated Aβ4-x species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimer's disease.
Walter S, Jumpertz T, Hüttenrauch M, Ogorek I, Gerber H, Storck SE, Zampar S, Dimitrov M, Lehmann S, Lepka K, Berndt C, et al.
Acta neuropathologica (2018) : . **IHC-P; tested species: mouse**

Biofunctionalized 3D nanopillar arrays fostering cell-guidance and promoting synapse stability and neuronal activity in networks.
Amin H, Dipalo M, De Angelis F, Berdondini L
ACS applied materials & interfaces (2018) : . **ICC; tested species: rat**

Differential regulation of chloride homeostasis and GABAergic transmission in the thalamus.
Schmidt T, Ghaffarian N, Philippot C, Seifert G, Steinhäuser C, Pape HC, Blaesse P
Scientific reports (2018) 8(1): 13929. **IHC; tested species: mouse**

Np95/Uhrf1 regulates tumor suppressor gene expression of neural stem/precursor cells, contributing to neurogenesis in the adult mouse brain.
Muro N, Matsubara S, Matsuda T, Noguchi H, Mutoh T, Mutoh M, Koseki H, Namiyama M, Nakashima K
Neuroscience research (2018) : . **ICC; tested species: mouse**

Local and global influences on protein turnover in neurons and glia.
Dörrbaum AR, Kochen L, Langer JD, Schuman EM
eLife (2018) 7: . **ICC; tested species: rat**

Biochemical autoregulatory gene therapy for focal epilepsy.
Lieb A, Qiu Y, Dixon CL, Heller JP, Walker MC, Schorge S, Kullmann DM
Nature medicine (2018) : . **IHC; tested species: rat**

ZDHHC8 critically regulates seizure susceptibility in epilepsy.
Yang Q, Zheng F, Hu Y, Yang Y, Li Y, Chen G, Wang W, He M, Zhou R, Ma Y, Xu D, et al.
Cell death & disease (2018) 9(8): 795. **IHC; tested species: human,mouse**

Muskelin Coordinates PrPC Lysosome versus Exosome Targeting and Impacts Prion Disease Progression.
Heisler FF, Pechmann Y, Wieser I, Altmeyer HC, Veenendaal L, Muhia M, Schweizer M, Glatzel M, Krasemann S, Kneussel M
Neuron (2018) : . **ICC; tested species: mouse**

The intellectual disability-associated CAMK2G p.Arg292Pro mutation acts as a pathogenic gain-of-function.
Onori MP, Koopal B, Everman DB, Worthington JD, Jones JR, Ploeg MA, Mientjes E, van Bon BW, Kleefstra T, Schulman H, Kushner SA, et al.
Human mutation (2018) : . **ICC; tested species: mouse**

GPR40 modulates epileptic seizure and NMDA receptor function.
Yang Y, Tian X, Xu D, Zheng F, Lu X, Zhang Y, Ma Y, Li Y, Xu X, Zhu B, Wang X, et al.
Science advances (2018) 4(10): eaau2357. **IHC; tested species: human,mouse**

A new photocaged puromycin for an efficient labelling of newly translated proteins in living neurons.
Schwalbe H, Elamri I, Heumüller M, Herzig LM, Stirnal E, Wachtveitl J, Schuman E
Chembiochem : a European journal of chemical biology (2018) : . **ICC; tested species: rat**

Stress Granule Assembly Disrupts Nucleocytoplasmic Transport.
Zhang K, Daigle JG, Cunningham KM, Coyne AN, Ruan K, Grima JC, Bowen KE, Wadhwa H, Yang P, Rigo F, Taylor JP, et al.
Cell (2018) : . **ICC; tested species: human**

Kinesin Family of Proteins Kif11 and Kif21B Act as Inhibitory Constraints of Excitatory Synaptic Transmission Through Distinct Mechanisms.
Swarnkar S, Avchalumov Y, Raveendra BL, Grinman E, Puthanveetil SV
Scientific reports (2018) 8(1): 17419. **ICC; tested species: mouse**

Proteolytic cleavage of Beclin 1 exacerbates neurodegeneration.
Bieri G, Lucin KM, O'Brien CE, Zhang H, Villeda SA, Wyss-Coray T
Molecular neurodegeneration (2018) 13(1): 68. **ICC; tested species: mouse**

Spatially Stable Mitochondrial Compartments Fuel Local Translation during Plasticity.
Rangaraju V, Lauterbach M, Schuman EM
Cell (2018) : . **ICC; tested species: rat**