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antibody and ELISA experts

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Anti-MAP2 Antibody Picoband®

Catalog Number: A01201-4

About MAP2

Microtubule-associated protein 2 is a protein that in humans is encoded by the MAP2 gene. This gene encodes a protein that belongs to the microtubule-associated protein family. The proteins of this family are thought to be involved in microtubule assembly, which is an essential step in neurogenesis. The products of similar genes in rat and mouse are neuron-specific cytoskeletal proteins that are enriched in dentrites, implicating a role in determining and stabilizing dentritic shape during neuron development. A number of alternatively spliced variants encoding distinct isoforms have been described.

Overview

Product Name	Anti-MAP2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MAP2 Antibody Picoband® catalog # A01201-4 Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P11137

Technical Details

Immunogen	E.coli-derived human MAP2 recombinant protein (Position: A360-E1101).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Mouse, Rat ELISA, 0.1-0.5 ug/ml, -

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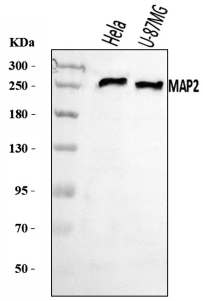
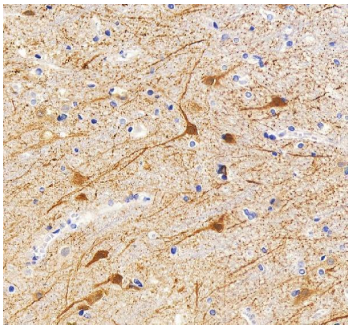
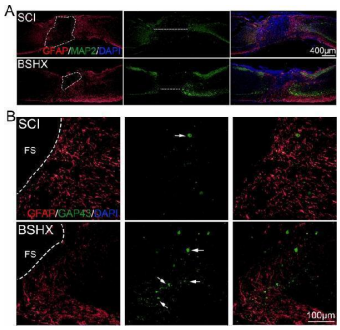
Anti-MAP2 Antibody Picoband® (A01201-4) Images



Western blot analysis of MAP2 using anti-MAP2 antibody (A01201-4). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human U-87MG whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MAP2 antigen affinity purified polyclonal antibody (Catalog # A01201-4) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MAP2 at approximately 280 kDa. The expected band size for MAP2 is at 200 kDa.



IHC analysis of MAP2 using anti-MAP2 antibody (A01201-4). MAP2 was detected in a paraffin-embedded section of human brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MAP2 Antibody (A01201-4) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



BSHX decoction decreased the damage of tissue and promoted axon regeneration after SCI. A Co-immunofluorescence images showed GFAP (red) and MAP2 (green) at day 14 after SCI. B Co-immunofluorescence images showed the axonal regeneration (GFAP, red; GAP43, green) in the lesion site at day after SCI. FS Fibrotic scar Index in PubMed under a CC BY license. PMID: 35820953

Detection of the mature retinal markers in the proliferation-cultured E13.5 RPCs. After 4 day proliferation culture in vitro, E13.5 RPCs showed no obvious expression of the mature retinal markers Rhodopsin (A-C), Map2 (D-F), or GS (G-I). Bars were 20 um.Index in PubMed under a CC BY license. PMID: 19960071

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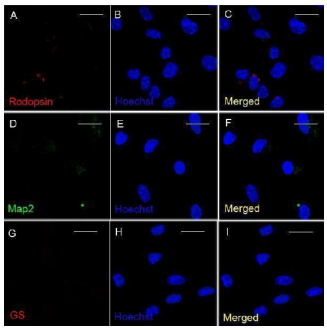
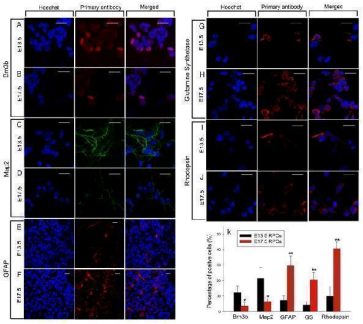
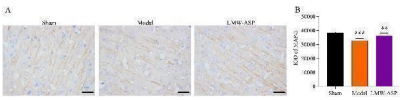
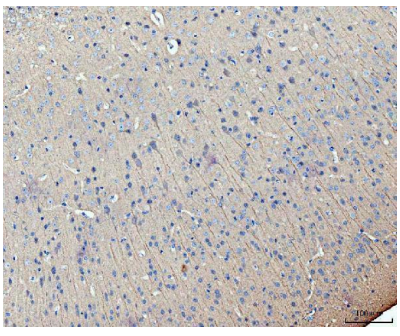




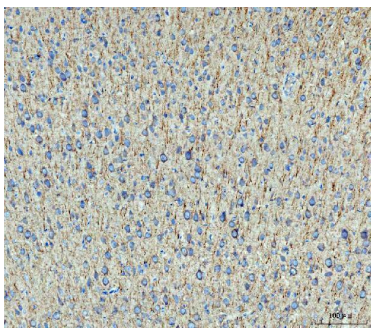
Immunofluorescence detection in differentiated E13.5 and E17.5 RPCs. After 8 days of differentiation, the expression of Brn3b (panel A , B), Map2 (panel C , D), GFAP (panel E , F), glutamine synthetase (panel G , H), and Rhodopsin (panel I , J) in E13.5 and E17.5 RPCs was investigated. K is the statistical ratio of positive cells in both RPCs. Note that the expression ratios of Brn3b and MAP2 in E13.5 RPCs were significantly higher than in E17.5 RPCs. In contrast, E17.5 RPCs expressed GFAP , glutamine synthetase (GS), and rhodopsin in higher percentages. The values were mean±standard deviation from three experiments. The symbols * and ** represent p



LMW-ASP upregulated the expression of MAP-2. (A) MAP-2 expression was detected by immunohistochemistry (400×, scale bar = 100 um). (B) The IODs of MAP-2 (mean ± SD, n = 6). ### indicates p<0.001 (sham versus model). ** indicates p<0.01 (model versus LMW-ASP).Index in PubMed under a CC BY license. PMID: 41019183



IHC analysis of MAP2 using anti-MAP2 antibody (A01201-4). MAP2 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MAP2 Antibody (A01201-4) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of MAP2 using anti-MAP2 antibody (A01201-4). MAP2 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MAP2 Antibody (A01201-4) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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19 Publications Citing This Product

1. PubMed ID: 10.4103/1673-5374.165512, The role of Rho/Rho-kinase pathway and the neuroprotective effects of fasudil in chronic cerebral ischemia

2. PubMed ID: 10.4103/1673-5374.202947, Neural stem cells over-expressing brain-derived neurotrophic factor promote neuronal survival and cytoskeletal protein expression in traumatic brain injury sites

3. PubMed ID: 10.3969/j.issn.1673-5374.2012.34.007, Ipsilateral versus bilateral limb-training in promoting the proliferation and differentiation of endogenous neural stem cells following cerebral infarction in rats

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Anti-MAP2 Antibody

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