Anti-NG2 Antibody [JM10-13] - BSA and Azide free

HA750372

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 251 kDa
Clone number:	JM10-13

Description: Chondroitin sulfate proteoglycan 4, also known as melanoma-associated chondroitin sulfate proteoglycan (MCSP) or neuron-glial antigen 2 (NG2), is a chondroitin sulfate proteoglycan that in humans is encoded by the CSPG4 gene. CSPG4 plays a role in stabilizing cell-substratum interactions during early events of melanoma cell spreading on endothelial basement membranes. It represents an integral membrane chondroitin sulfate proteoglycan expressed by human malignant melanoma cells. CSPG4/NG2 is also a hallmark protein of oligodendrocyte progenitor cells (OPCs)[8] and OPC dysfunction has been implicated as a candidate pathophysiological mechanism of familial schizophrenia.

Immunogen: Synthetic peptide within Human NG2 aa 2,271-2,314 / 2,322.

Positive control: A375 cell lysate, SK-MEL-28 cell lysate, mouse brain tissue lysate, rat brain tissue lysate, SiHa cell lysate, THP-1 cell lysate, human malignant melanoma tissue, mouse brain tissue, rat brain tissue.

Subcellular location: Cell membrane, Apical cell membrane, Cell projection, Cell surface.

Database links: SwissProt: Q6UVK1 Human | Q8VHY0 Mouse | Q00657 Rat

Recommended Dilutions:

WB	1:1,000-1:2,000
IHC-P	1:50-1:400

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

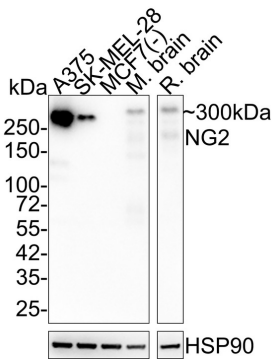

Fig1: Western blot analysis of NG2 on different lysates with Rabbit anti-NG2 antibody (HA750372) at 1/2,000 dilution.

Lane 1: A375 cell lysate (15 µg/Lane)
Lane 2: SK-MEL-28 cell lysate (15 µg/Lane)
Lane 3: MCF7 cell lysate (negative) (15 µg/Lane)
Lane 4: Mouse brain tissue lysate (20 µg/Lane)
Lane 5: Rat brain tissue lysate (20 µg/Lane)

Predicted band size: 251 kDa
Observed band size: 300 kDa

Exposure time: 2 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750372) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

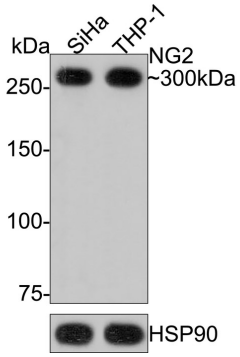

Fig2: Western blot analysis of NG2 on different lysates with Rabbit anti-NG2 antibody (HA750372) at 1/1,000 dilution.

Lane 1: SiHa cell lysate
Lane 2: THP-1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 251 kDa
Observed band size: 300 kDa

Exposure time: 3 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750372) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

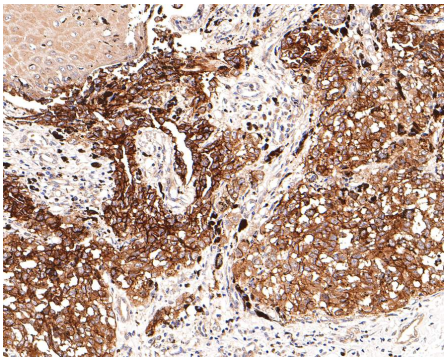

Fig3: Immunohistochemical analysis of paraffin-embedded human malignant melanoma tissue using anti-NG2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750372, 1/400) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

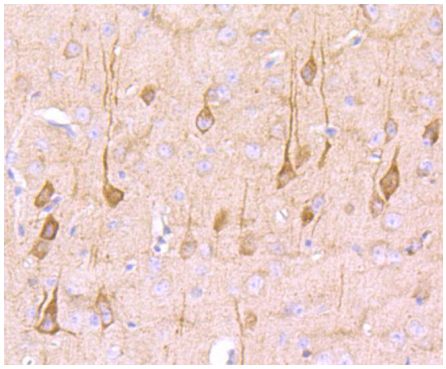

Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-NG2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750372, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

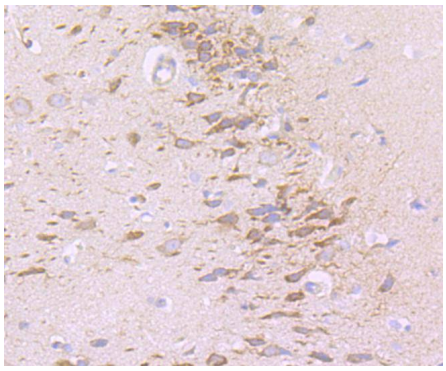

Fig5: Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-NG2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750372, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Raha-Chowdhury R et al. Expression and cellular localization of hepcidin mRNA and protein in normal rat brain. BMC Neurosci 16:24 (2015).
2. Milesi S et al. Redistribution of PDGFR cells and NG2DsRed pericytes at the cerebrovasculature after status epilepticus. Neurobiol Dis 71C:151-158 (2014).