

Anti-NG2 Chondroitin Sulfate Proteoglycan

Monoclonal Antibody

Cat. # MAB5384

Lot # LV1554251

pack size: 100 µg

Store at 2-8°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, ELISA, IC, IH	H, M, R	IgG1	N/A	M	~ 280 kDa	NM_001897.4

Background

NG2 is a high molecular weight, integral membrane chondroitin sulfate proteoglycan. It is found on the surfaces of an unusual class of glial cells within the developing and mature central nervous system that have the properties of oligodendrocyte precursor cells (i.e., O-2A progenitor cells). NG2 is also found on the surfaces of chondroblasts, proliferating capillary endothelial cells, some human melanoma cell lines, and on leukemic blasts in childhood acute lymphoblastic leukemia. The NG2 proteoglycan is likely to play a role in regulation of cell motility, axon outgrowth and the cellular responses to platelet-derived growth factor.

Presentation

Liquid in 0.02 M Phosphate buffer, containing 0.25 M NaCl and 0.1% azide.

Concentration

1 mg/mL

Specificity

NG2 Chondroitin Sulfate Proteoglycan. MAB5384 reacts with native, recombinant and protein from cells which express NG2.

Species Cross-reactivity

Rat. Expected to react with human and mouse based on sequence similarity.

Immunogen

Cell line expressing a truncated form of NG2.

Molecular Weight

~ 280 kDa

Method of Purification

Protein G Purified

Storage and Handling

Stable for 6 months at 2-8°C in undiluted aliquots from date of receipt.

Control

Neonatal rat brain extract

Quality Control Testing

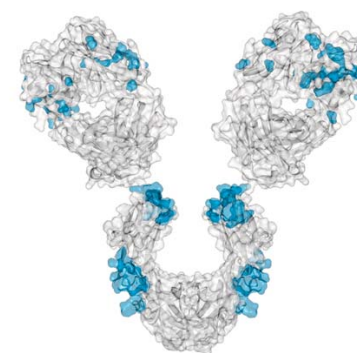
Evaluated by Western Blot on rat brain lysates.

Western Blot Analysis: 1:500 dilution of this antibody detected NG2 Chondroitin Sulfate Proteoglycan on 10 µg of rat brain lysates.



Western Blot Analysis:
Representative lot data. Rat brain lysate was resolved by electrophoresis, transferred to PVDF membrane and probed with anti-NG2 Chondroitin Sulfate Proteoglycan (1:500 dilution). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and a chemiluminescence detection system.

Arrow indicates NG2 Chondroitin Sulfate Proteoglycan (~280 kDa).



References

1. Ponti, Giovanna, *et al.* (2008). *PLoS ONE*. 3: e2366.
2. Svenningsen, A. F., *et al.* (2004). *Neuron Glia Biol.* 1:85-93.
3. Fernandez, M, *et al.* (2004). *PNAS, USA*. 101(46): 16363-16368.
4. Barberi, T., *et al.* (2003). *Nat. Neurosci.* 21(10): 1200-1207.

Additional Research Applications

Immunocytochemistry: 1:200-1:500 dilution of a previous lot was used on oligodendrocyte precursor cells.

ELISA (direct): A previous lot of this antibody was used in ELISA.

Optimal working dilutions must be determined by end user.

APPLICATION LEGEND: WB Western Blotting ELISA Enzyme-linked Immunosorbent Assay IP Immunoprecipitation
IC Immunocytochemistry IF Immunofluorescence IH Immunohistochemistry (Tissue)

SPECIES LEGEND: H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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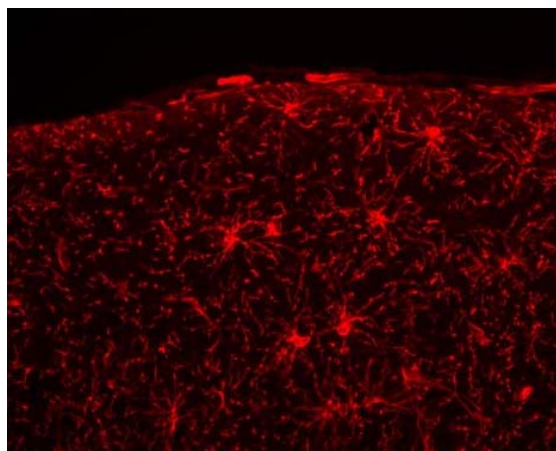
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Additional Research Applications

Immunohistochemistry: Suggested that the tissue used is only lightly fixed (4% paraformaldehyde for less than 2 hours, etc.). Avoid overfixing tissue. Suggested blocking buffer is 2-4% normal serum. Suggested antibody dilution buffer is PBS containing 0.1% Triton X100.

Optimal working dilutions must be determined by end user.



Immunohistochemistry: Representative image from a previous lot.

Mouse anti-NG2 (Catalog Number MAB5384). Localization of NG2 in adult rat cortex.

PROTOCOL**Western Blot**

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA or milk with 0.05% Tween[®]-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of Anti-NG2 Chondroitin Sulfate Proteoglycan diluted in freshly prepared 5% BSA or milk for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice (a Donkey Anti-Mouse IgG, HRP conjugate, Catalog # AP192P 1:1000 dilution was used) in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Use Spray and Glow Catalog # 17-373 to visualize results. Use as directed.

RELATED PRODUCTS (specific)

cat #	description
MAB2030	■ Anti-Chondroitin 4 Sulfate, clone BE-123
MAB2035	■ Anti-Chondroitin 6 Sulfate, clone MK-302
MAB5284	■ Anti-Chondroitin Sulfate Proteoglycan, Brain (core protein), clone Cat-301
MAB1582	■ Anti-Chondroitin Sulfate Proteoglycan, carbohydrate epitope, clone Cat-316
MAB2029	■ Anti-Chondroitin Sulfate Proteoglycan, clone 9.2.27
MAB1581	■ Anti-Chondroitin Sulfate Proteoglycan, Core Protein Epitope, clone Cat-315
AB5320	■ Anti-NG2 Chondroitin Sulfate Proteoglycan
MAB5520	■ Anti-NG2 Chondroitin Sulfate Proteoglycan, clone 7.1
05-710	■ Anti-NG2, clone 132.38
CC117	■ Chicken Extracellular Chondroitin Sulfate Proteoglycans
AP124P	■ Goat anti-Mouse IgG, Peroxidase Conjugated, H+L

RELATED PRODUCTS (non-specific)

cat #	description
IPVH00010	■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPFL00010	■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPVH07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm
ISEQ07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	■ Immobilon Western Chemillum HRP Substrate 100 mL
17-373	■ Spray & Glow™ ECL WB Detection System 1 ea
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

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