

Anti-NG2 Chondroitin Sulfate Proteoglycan

Polyclonal Antibody

Cat. # AB5320

Lot # LV1519145

pack size: 100 µg

Store at -20°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, IP	H, M, R, Mk	IgG	N/A	Rb	270-300 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

Purified rabbit polyclonal in PBS buffer containing 0.02% azide.

Concentration

1 mg/mL

Specificity

NG2 Chondroitin Sulfate Proteoglycan. AB5320 identifies both the intact proteoglycan and the core protein by Western blot and ELISA. When oligodendrocyte precursor cells (*i.e.* O-2A progenitor cells) are stained alive, the stain appears as clusters on the cell surface. This antibody does not stain differentiated oligodendrocytes well.

Immunogen

Immunoaffinity purified NG2 Chondroitin Sulfate Proteoglycan from rat.

Molecular Weight

270-300 kDa

Method of Purification

Antibody purified by protein A, then placed over a fibronectin affinity column.

Storage and Handling

Stable for 6 months at -20°C in undiluted aliquots from date of receipt.

Handling Recommendations: Upon receipt, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance.

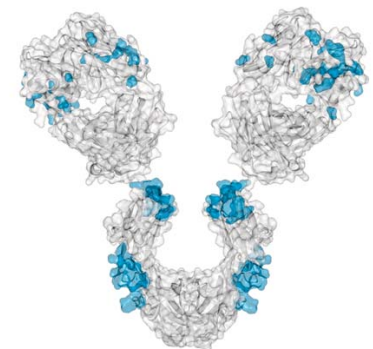
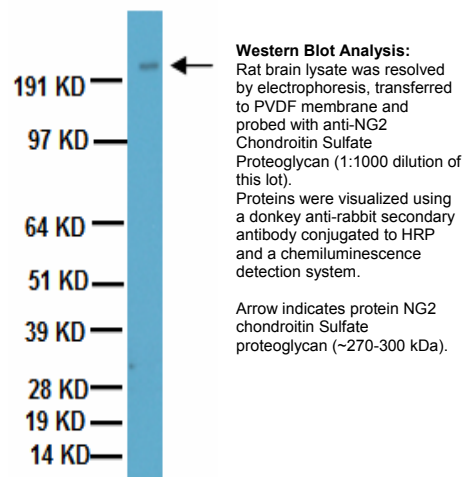
Control

Human melanoma, glioma and proliferating brain endothelial cells, rat B49 glial cell extracts or embryonic mouse brain tissue.

Quality Control Testing

Routinely evaluated by Western Blot on rat brain lysates

Western Blot: 1:1000 dilution of this lot detected NG2 chondroitin sulfate on 10 µg of rat brain lysates.



References

1. Rolls, Asya, *et al.* (2007). *Nat Cell Biol.* 9:1081-8.
2. Ishibashi, T., *et al.* (2006). *Neuron.* 49(6):823-832.
3. Ponti, Giovanna, *et al.* (2006). *Dev Biol.* 294:168-80.
4. Wicher, Grzegorz, *et al.* (2006). *J Neurosci Res.* 83:864-73.
5. Zhao, Lixia, *et al.* (2006). *J Neurosci.* 26:11278-86.

Additional Research Applications

Immunocytochemistry: A 1:150-1:600 dilution of a previous lot was used in IC.

Immunohistochemistry: 1:200 dilution of a previous lot was used on frozen sections of embryonic mouse brain using an Alexa Fluor conjugated secondary antibody. Care should be taken to avoid overfixing tissue sections. A short (5-10 minute) fix in 2-4% PFA is recommended.

Immunoprecipitation: 2 µg/mL concentration of a previous lot was used in IP.

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

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

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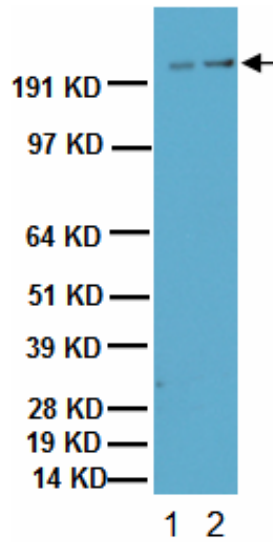
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Additional Research Applications

ELISA: A 1:1,500-1:3,000 dilution of a previous lot was used in ELISA.

Optimal working dilutions and protocols must be determined by end user.



Western Blot Analysis:

Representative image from a previous lot. Rat Brain (Lane 1) and Mouse Brain Membrane were resolved by electrophoresis, transferred to PVDF membrane and probed with anti-NG2 Chondroitin Sulfate Proteoglycan (1:1000 dilution of a previous lot). Proteins were visualized using a donkey anti-rabbit secondary antibody conjugated to HRP and a chemiluminescence detection system.

Arrow indicates protein NG2 Chondroitin Sulfate Proteoglycan (~270-300 kDa).

Important Note: During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.

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
MAB5384	■ 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
AP132P	■ Goat anti-Rabbit IgG, Peroxidase Conjugated
AP182P	■ Donkey anti-Rabbit IgG, HRP conjugated; 500 µL

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
WBKLS0050	■ IMMOBILON WESTERN CHEMILUM HRP SUBSTRATE 50 mL
17-373SP	■ Spray & Glow™ ECL Western Blotting 40 mL
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G
2170	■ CHEMIBLOCKER-1LT
20-200	■ IMMUNOBLOT BLOCKING REAGENT 20G

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

Please visit www.millipore.com for additional product information, test data and references

28820 Single Oak Drive • Temecula, CA 92590

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