

# Anti-Aggrecan

Polyclonal Antibody

Cat. # AB1031

Lot # JC1639169

pack size: 50 µg

Store at - 20°C

FOR RESEARCH USE ONLY  
NOT FOR USE IN HUMANS



## Certificate of Analysis

page 1 of 2

Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, IP, IH(P), IF	M	N/A	N/A	Rb	N/A	NP_001126

### Background

Aggregating chondroitin sulfate proteoglycan or aggrecan, is one of the most studied proteoglycans. Many individual monomers of aggrecan bind to hyaluronic acid to form an aggregate, the monomer is known as aggrecan. The aggregates are comprised of up to 100 monomers attached to a single chain of hyaluronic acid. The high content of negatively charged polysaccharide chains contributes to the osmotic swelling of cartilage and in combination with intact collagen fibers results in articular cartilage resistance to compressive forces and high tensile strength. Aggrecan is abundant in articular cartilage and comprises 10% of its dry weight.

### Presentation

Rabbit polyclonal antigen affinity purified antibody in PBS. Anti-GST has not been adsorbed. Liquid.

**Note:** Aggrecan is present in articular cartilage, brain, heart, and other tissues.

### Concentration

0.5 mg/mL

### Specificity

AB1031 is specific for mouse aggrecan; other species have not been tested.

### Species Cross-reactivity

Mouse. Expected to cross react with Human and rat.

### Immunogen

GST fusion protein containing amino acids 1177-1326 of mouse aggrecan.

### Method of Purification

Immunoaffinity Purified

### Storage and Handling

Stable for 1 year at -20°C from date of receipt.

Handling Recommendations: Upon first thaw, 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.

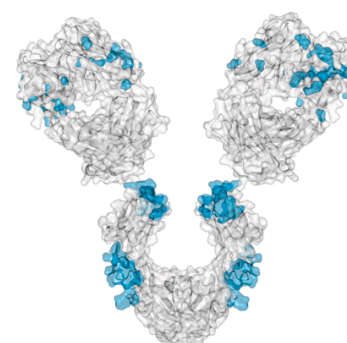
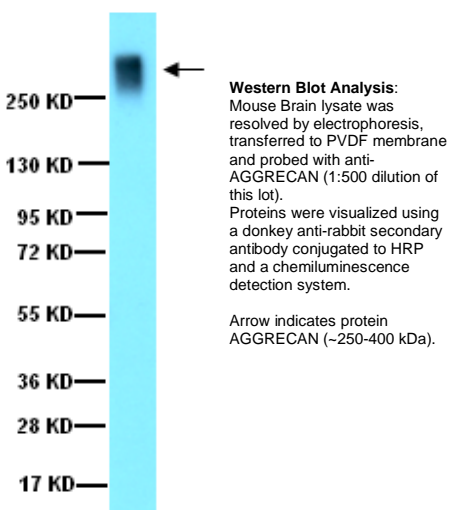
### Control

Cartilage, neural tube, and brain tissue.

### Quality Control Testing

Routinely evaluated by Western Blot on Mouse Brain lysates.

**Western Blot Analysis:** 1:500 dilution of this lot detected AGGRECAN on 10 µg of Mouse Brain lysates.



### Additional Research Applications

**Immunohistochemistry(Paraffin):** A previous lot of this antibody was used at 10 µg/mL. See note under Protocol regarding triton X-100 treatments.

**Immunoprecipitation:** A previous lot of this antibody was used at 5 µg/ 500 µL of cell membrane extract in PBS with inhibitors and > 0.5% triton X-100.

**APPLICATION LEGEND:** WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence  
IH Immunohistochemistry (Tissue) IH(P) Immunohistochemistry (Paraffin)

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

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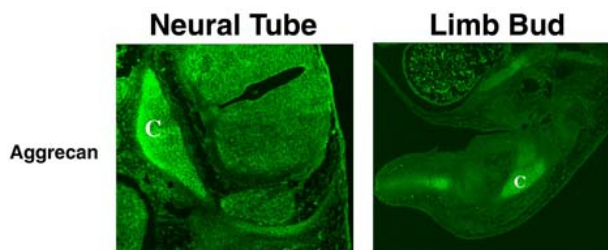
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**Additional Research Applications**

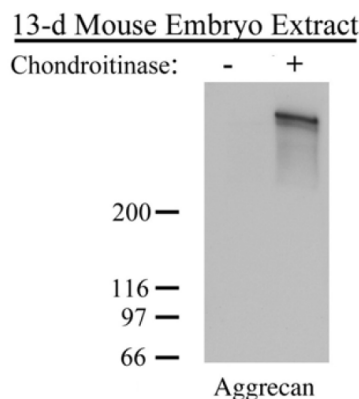
Immunofluorescence: Representative image from a previous lot. (Figure 1) Staining of Embryonic Mouse Neural Tube and Limb Bud: C indicates cartilage. Note that anti-aggrecan stains cartilage in both limb bud and near neural tube as well as neural tube itself. The end user must determine optimal working dilutions.

Figure 1:



Western Blot Analysis: Representative image from a previous lot. (Figure 2) A 13-day embryonic mouse washomogenized and analyzed with and without chondroitinase treatment of the sample. Chondroitinase treatment reveals high molecular weight polypeptides recognized by anti-aggrecan.

Figure 2:



**PROTOCOL**

**Western Blotting**

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 with 0.05% Tween®-20 for 1 hour at room temp. with constant agitation.
3. Incubate the PVDF with the recommended dilution of anti-Aggrecan at 1:500 dilution in freshly prepared 5% BSA 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 goat anti-rabbit HRP conjugated IgG, Catalog # 12-348 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.

**Immunohistochemistry**

Tissues must be treated with chondroitinase before staining. Permeabilization is normally not required, however in some cases excess fixation may require treatment with dilute Triton X-100 (0.1%-0.2%, 1 hour) prior to staining for enhanced reactivity.

**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
AB1031	■ Anti-Aggrecan
MAB19310	■ Anti-Aggrecan, MMP Cleaved, N-terminus FFGVG neopeptides, clone AF-28
CC1890	■ Aggrecan Interglobular Domain, Recombinant, His-tagged

**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 Chemilum 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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28820 Single Oak Drive • Temecula, CA 92590

Technical Support: T: 1-800-MILLIPORE (1-800-645-5476) • F: 800 437-7502

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