

INTRODUCTION

During differentiation of neural precursor cells, neurospheres downregulate Chondroitin sulfate proteoglycans (CSPGs). Proliferating neural precursors synthesize lecticans, including aggrecan, which are downregulated with differentiation; suggesting a link between CSPGs and CNS precursor biology.

Aggrecan degradation products containing this neopeptide are rapidly released from the tissue in model explant culture systems and are also present in the synovial fluids of patients with degenerative joint disease.

IMMUNOGEN

ARGSV synthetic peptide conjugate.

CLONE

BC-3

MYELOMA

x63-Ag8.653

ISOTYPE

IgG1

LIGHT CHAIN TYPE

kappa

SPECIFICITY

Recognizes the aggrecanase (ADAMTS-1, -4 & -5)-generated N-terminal neopeptide ARG after cleavage between amino acids EGE and ARG within the interglobular domain of aggrecanase-catabolised aggrecan (Human aggrecan sequence enumeration). This antibody will not recognize the sequence ARG if it is in the non-cleaved intact aggrecan protein core; i.e. it will only recognize the aggrecanase generated neopeptide ARG.

This antibody cross-reacts with human, rat, cat, cow, dog, guinea pig, horse, pig, rabbit and sheep.

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PURITY	Affinity purified on protein G
STORAGE BUFFER	PBS, no preservatives
FORM	Liquid, 1 ml/vial
CONCENTRATION	0.1 mg/mL
APPLICATION	<ul style="list-style-type: none">• Western-Blotting Suggested dilution: 1:100 Detects a variety of epitopes between 50 and 250 kDa• ELISA• IHC with frozen sections or formalin/PFA-fixed paraffin embedded sections
TECHNICAL NOTES	Samples must be deglycosylated using 0.01 Units Chondroitinase ABC (Sigma), 0.01 Units Keratanase (Seikagaku) and 0.0001 Units Keratanase II (Seikagaku) per 10µg S-GAG of non-deglycosylated aggrecan for optimal epitope recognition (1, 2).
STORAGE	The antibody is stable until the expiry date given on the label if stored at -20 °C. Repeated freezing and thawing should be avoided. Aliquoting is recommended.
REFERENCES	<ol style="list-style-type: none">1. Little CB et al. Matrix metalloproteinases are involved in C-terminal and interglobular domain processing of cartilage aggrecan in late stage cartilage degradation. Matrix Biol 21:271-88 (2002).2. Caterson B et al. Mechanisms involved in cartilage proteoglycan catabolism. Matrix Biol 19:333-44 (2000).

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