Datasheet for ABIN2664049

anti-Aggrecan antibody

1 Image

Go to Product page

Overview

Quantity:	100 µg
Target:	Aggrecan (ACAN)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Aggrecan antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Clone:	M4004A03
Isotype:	IgG
Purification:	The antibody was purified by affinity chromatography.

Target Details

Target:	Aggrecan (ACAN)
Alternative Name:	Aggrecan (ACAN Products)
Background:	Aggrecan, also known as aggrecan 1, is the major proteoglycan in the articular cartilage. This high molecular weight protein exhibits a bottlebrush structure, in which chondroitin sulfate and keratan sulfate chains are attached to an extended protein core. Aggrecan plays an important role in the proper functioning of articular cartilage by providing a hydrated gel structure through

Target Details

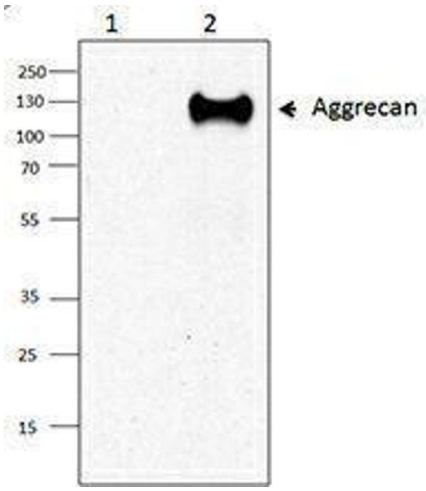
	its interaction with hyaluronan and link proteins. Aggrecan is expressed by chondrocytes and is found to be crucial in chondroskeletal morphogenesis during development. Mutations in this gene may be involved in skeletal dysplasia and spinal cord degeneration. Structurally, aggrecan is composed of two globular domains (G1 and G2) at the N-terminal end and one globular domain (G3) at the C-terminal end, which are separated by a large extended domain (CS) heavily modified with glycosaminoglycans. G1 and G2 domains of aggrecan are separated by the interglobular domain (IGD). Biologically, the G1 domain interacts with hyaluronan acid and link proteins, which forms stable ternary complexes in the extracellular matrix (ECM). The G2 domain is homologous to the tandem repeats of G1 and link proteins, and is involved in product processing. G3 makes up the carboxyl terminus of the core protein, and enhances glycosaminoglycan modification and product secretion. Also, the G3 domain links the proteoglycan aggregates to the ECM proteins, which are fibulins and tenascins. The degradation of aggrecan appears to initiate at the C-terminus. The population of aggrecan molecules without the G3 domain increases with aging.
Pathways:	Glycosaminoglycan Metabolic Process, Dicarboxylic Acid Transport

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Phosphate-buffered solution, pH 7.2, containing 0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	The antibody solution should be stored undiluted between 2°C and 8°C.



Western Blotting

Image 1.