

Mouse Anti-Aggrecan [MD399]: MC0657, MC0657RTU7

Intended Use: For Research Use Only

Description: Aggrecan protein, also known as cartilage-specific proteoglycan core protein, encoded by the ACAN gene, is a large chondroitin sulfate proteoglycan that plays a crucial role in maintaining the structural integrity and resilience of cartilage. Aggrecan protein is primarily located in the extracellular matrix of cartilage, where aggrecan forms aggregates with hyaluronan and link proteins, contributing to the tissue's compressive strength and ability to withstand mechanical stress. This localization is vital for proper cartilage functioning, as aggrecan interacts with collagen fibers, providing necessary support and cushioning in joints. Aggrecan exhibits a bottlebrush structure, in which chondroitin sulfate and keratan sulfate chains are attached to an extended protein core. The synthesis and degradation of aggrecan are being investigated for their roles in cartilage deterioration during joint injury, disease, and aging.

Specifications

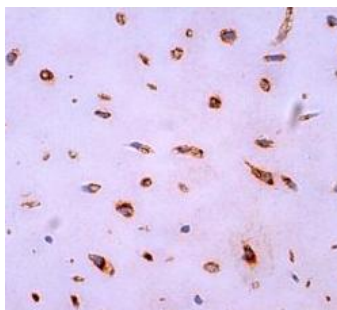
Clone: MD399
 Source: Mouse
 Isotype: IgG1κ
 Reactivity: Human
 Immunogen: Epitope to human articular cartilage aggrecan protein
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, IF, IP, WB
 Package:

Description	Catalog No.	Size
Aggrecan [MD399] Concentrated	MC0657	1 ml
Aggrecan [MD399] Prediluted	MC0657RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Cartilage tissue, lung, lung cancer
 Concentrated Dilution: 25-200
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human cartilage tissue stained with anti-Aggrecan using DAB

References:

1. Pro-differentiating compounds for human intervertebral disc cells are present in Violina pumpkin leaf extracts. Elisabetta Lambertini, et al. Int J Mol Med. May;51(5):39, 202. doi: 10.3892/ijmm.2023.5242.
2. Direct Reprogramming and Induction of Human Dermal Fibroblasts to Differentiate into iPS-Derived Nucleus Pulposus-like Cells in 3D Culture. Shoji Seki, et al. Int J Mol Sci. Apr 6;23(7):4059, 2022. doi: 10.3390/ijms23074059.
3. Human bone marrow mesenchymal stem cells protect catecholaminergic and serotonergic neuronal perikarya and transporter function from oxidative stress by the secretion of glial-derived neurotrophic factor. Alan L Whone, et al. Brain Res. Jan 11;1431:86-96, 2012, 2011.

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Rev. A

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