

Product Information

Anti-Chondroitin Sulfate antibody, Mouse monoclonal
clone CS-56, purified from hybridoma cell culture

Product Number **SAB4200696**

Product Description

Anti-Chondroitin Sulfate antibody, Mouse monoclonal (mouse IgM isotype) is derived from the hybridoma CS-56 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with Ventral membranes of chicken gizzard fibroblasts. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Chondroitin Sulfate antibody, Mouse monoclonal recognizes Chondroitin Sulfate containing Proteoglycans (CSPG) in bovine mammary gland epithelial (BMGE) cells and also in human, chicken and mouse fibroblasts or tissues.^{1,2} The antibody may be used in various immunochemical techniques including Immunofluorescence and Immunohistochemistry.¹⁻⁴

Chondroitin Sulfate is a sulfated glycosaminoglycan (GAG) usually found linked to serine residues of CSPGs, composed of variable unbranched polysaccharides containing two alternating monosaccharides: D-glucuronic acid (GlcA) and N-acetyl-D-galactosamine (GalNAc). Chondroitin sulfate is an important structural component of cartilage and provides much of its resistance to compression.⁵ The CSPGs are major components of the extracellular matrix (ECM) in intact tissue and in culture. In the brain CSPGs play significant roles in cell migration, neurite elongation, pathfinding and synaptogenesis in the developing brain as well as regeneration and synaptic plasticity in the adult brain. In the latter CSPGs display a unique distribution pattern, termed perineuronal nets (PNNs).⁶⁻⁷ CSPGs expression was found to be upregulated after injury at lesion sites of the blood-brain barrier in a complex of fibrinogen and TGF- β , triggering the release of extracellular matrix components by reactive astrocytes.⁷ Chondroitin sulfate, along with glucosamine, has become a widely used dietary supplement for treatment of osteoarthritis.⁸

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunofluorescence: a concentration of 2.5-5 μ g/mL is recommended using bovine BMGE cells.

Immunohistochemistry: a concentration of 2.5-5 μ g/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human colon cancer sections and Biotin/ExtrAvidin®-Peroxidase staining system.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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7. Alilain WJ., et al., *Nature.*, **475**, 196-200 (2011).
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DR_LV/OKF, AI,PHC 04/16-1