chondroitin sulfate (PG-4): sc-517303

**BACKGROUND**

Chondroitin sulfate is a sulfated glycosaminoglycan (GAG) composed of a chain of alternating sugars, usually attached to proteins as part of a proteoglycan. Chondroitin sulfate is a major component of the extracellular matrix, and it plays a key role in maintaining the structural integrity of the tissue. Chondroitin sulfate is an important structural component of cartilage and is responsible for most of its resistance to compression. This molecule also has regulatory roles, as it readily interacts with proteins in the extracellular matrix due to its negative charges. These interactions are important for regulating a diverse array of cellular activities. In the nervous system, Chondroitin sulfate proteoglycans function to regulate the growth and development of the nervous system as well as the nervous system response to injury. Chondroitin is commonly used in dietary supplements as an alternative medicine to treat osteoarthritis.

**REFERENCES**

6. Zou, X.H., Foong, W.C., Cao, T., Bay, B.H., Ouyang, H.W. and Yip, G.W. 2004. Chondroitin sulfate and chondroitin sulfate proteoglycan epitope in both dermatan sulfate and chondroitin sulfate proteoglycans of human skin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

**APPLICATIONS**

chondroitin sulfate (PG-4) is recommended for detection of a glycosaminoglycan epitope in both dermatan and chondroitin sulfate proteoglycans of human skin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

**SOURCE**

chondroitin sulfate (PG-4) is a mouse monoclonal antibody raised against dermal fibroblasts of human origin.

**PRODUCT**

Each vial contains 200 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.