

INTRODUCTION

Keratan Sulphate (KS) is sulphated glycosoaminoglycan (GAG) component of proteoglycans found in cornea (KS type I), cartilage, intervertebral disk and other musculoskeletal tissues (KS type II). The KS chains are attached to the core proteins of many matrix proteoglycans eg lumican, keratocan, aggrecan etc. This monoclonal antibody has been raised against skeletal KS type II in human aggrecan. In addition to recognising skeletal KS type II epitopes it recognises corneal KS type I.

IMMUNOGEN

Keratan sulphate from skeletal KS type II in human aggrecan

CLONE

5D4

ISOTYPE

IgG

HOST

Mouse

PURITY

Affinity purified

SPECIFICITY

Highly sulphated keratan sulphate glycosoaminoglycan chains in both Type I and Type II KS. (see Caterson et al 1983 and Mehmet et al 1986)

APPLICATIONS

- ELISA (see Thonar et al 1985)
- Western Blot (see Rees et al 2000)
- Immunohistochemistry (see Young et al 2007a & 2007b and Hayes et al 2007 & 2008)

TECHNICAL NOTES

No enzyme pretreatment required.

STORAGE BUFFER

PBS, no preservatives

For research use only.



FORM

Clear Liquid

CONCENTRATION

See vial label for concentration

STORAGE

Store at -20°C. Avoid freeze/thaw cycles. Check label for expiry date.

REFERENCES

1. Caterson B, Christner JE & Baker JR (1983). Identification of a monoclonal antibody that specifically recognizes corneal and skeletal keratan sulfate. Monoclonal antibodies to cartilage proteoglycan. *J Biol Chem.* 258(14): 8848-54.
2. Thonar EJ, Lenz ME, Klintworth GK, Caterson B, Pachman LM, Glickman P, Katz R, Huff J & Kuettner KE (1985). Quantification of keratan sulfate in blood as a marker of cartilage catabolism. *Arthritis & Rheum.* 28(12): 1367-76.
3. Mehmet H, Scudder P, Tang PW, Hounsell EF, Caterson B & Feizi T (1986). The antigenic determinants recognized by three monoclonal antibodies to keratan sulphate involve sulphated hepta- or larger oligosaccharides of the poly(N-acetyllactosamine) series. *Eur J Biochem.* 157(2): 385-91.
4. Funderburgh JL, Caterson B & Conrad GW (1987). Distribution of proteoglycans antigenically related to corneal keratan sulfate proteoglycan. *J Biol Chem.* 262(24):11634-40.
5. Rees SG, Flannery CR, Little CB, Hughes CE, Caterson B & Dent CM (2000). Catabolism of aggrecan, decorin and biglycan in tendon. *Biochem J.* 350: 181-188.
6. Young RD, Akama TO, Liskova P, Ebenezer ND, Allan B, Kerr B, Caterson B, Fukuda MN, Quantock AJ (2007a). Differential immunogold localisation of sulphated and unsulphated keratan sulphate proteoglycans in normal and macular dystrophy cornea using sulphation motif-specific antibodies. *Histochem Cell Biol.* 127(1):115-20
7. Young RD, Gealy EC, Liles M, Caterson B, Ralphs JR & Quantock AJ (2007b). Keratan sulfate glycosaminoglycan and the association with collagen fibrils in rudimentary lamellae in the developing avian cornea. *Invest Ophthalmol Vis Sci.* 2007 Jul;48(7):3083-8.
8. Hayes AJ, Hall A, Brown L, Tubo R & Caterson B (2007). Macromolecular organization and in vitro growth characteristics of scaffold-free neocartilage grafts. *J Histochem Cytochem.* 55(8):853-66.
9. Hayes AJ, Hughes CE & Caterson B (2008). Antibodies and immunohistochemistry in extracellular matrix research. *Methods* 45: 10-21

