

# **Monoclonal Antibody to Keratocan**

## Catalog Number 1042008

For research use only

INTRODUCTION

Keratocan belongs to the Small Leucine Rich Proteoglycan (SLRP) family. It was originally found to be a cornea specific keratan sulphate proteoglycan that, along with Lumican, plays a role in the development and maintenance of corneal transparency. Mutations of keratocan cause cornea plana in humans, which is often associated with glaucoma, whereas the absence of Lumican leads to formation of cloudy corneas. This suggests that Keratocan and Lumican have different roles in regulating the formation of stromal extracellular matrix.

CLONE Ker-1

**HOST** Mouse

**ISOTYPE** IgM

**PURITY** Affinity purified on thiophilic column

**STORAGE BUFFER** PBS, no preservatives

FORM Liquid

**CONCENTRATION** Please see vial label for concentration.

**STORAGE** Store at -20°C. Avoid freeze/thaw cycles.

**EXPIRATION** See vial Label

**SPECIFICITY** This Keratocan antibody recognises a protein core epitope in

human, bovine, porcine, mouse & chicken tissues.

Human Cornea Bovine Cornea

Species Reactivity with Ker-1. Samples are treated with Keratanase and Keratanase II prior to electrophoresis.

## International

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#### **North America**

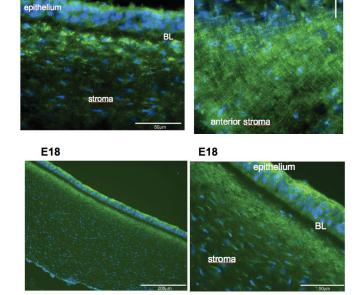
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## **APPLICATION**

- ELISA
- Western Blot: recommended dilution 0.4 μg/mL
- IHC

E13

Note: This epitope is best recognized after keratanase and keratanase II treatment/digestion of section (IHC) or tissue extracts (for Western analyses). In some IHC tissue analyses, chondroitinase treatment may also be used as this second enzyme treatment facilitates antibody penetration into the tissue.



REFERENCES

- 1. Immunolocalisation and expression of keratocan in tendon. Rees SG, Waggett AD, Kerr BC, Probert J, Gealy EC, Dent CM, Caterson B, Hughes CE. (2008) Osteoarthritis Cartilage.
- 2. Fragmentation of decorin, biglycan, lumican and keratocan is elevated in degenerate human meniscus, knee and hip articular cartilages compared with age-matched macroscopically normal and control tissues. Melrose J, Fuller ES, Roughley PJ, Smith MM, Kerr B, Hughes CE, Caterson B, Little CB. (2008) Arthritis Res Ther. 10(4):R79.
- 3. Differential expression of the keratan sulphate proteoglycan, keratocan, during chick corneal embryogenesis. Gealy EC, Kerr BC, Young RD, Tudor D, Hayes AJ, Hughes CE, Caterson B, Quantock AJ, Ralphs JR. (2007) Histochem Cell Biol. Dec;128(6):551-5.

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181.8 kDa

115.5 kDa 82.2 kDa 64.2 kDa 48.8 kDa 37.1 kDa 25.9 kDa 19.4 kDa

Above: Western Blot

using anti-Keratocan at a concentration of

0.4 ug/mL

13, 15 and 18.

Left: Keratocan localisation in the Embryonic cornea on days