



Lumican (L-20): sc-27718

BACKGROUND

Lumican, a member of the small leucine-rich proteoglycans (SLRPs) family of proteins, is a keratan sulfate proteoglycan present in large quantities in the corneal stroma and in interstitial collagenous matrices of the heart, aorta, skeletal muscle, skin, and intervertebral discs. During collagen fibrillogenesis, Lumican regulates the assembly of collagens into higher order fibrils, limiting the growth of fibrils in diameter. Lumican is present in the extracellular matrix of human articular cartilage at all ages, with a far greater abundance in the adult. Human Lumican maps to chromosome 12q21.3-q22.

REFERENCES

1. Chakravarti, S., et al. 1995. Primary structure of human Lumican (keratan sulfate proteoglycan) and localization of the gene (LUM) to chromosome 12q21.3-q22. *Genomics* 3: 481-488.
2. Chakravarti, S., et al. 1995. Localization of mouse Lumican (keratan sulfate proteoglycan) to distal chromosome 10. *Mamm. Genome* 6: 367-368.
3. Grover, J., et al. 1995. The human Lumican gene. Organization, chromosomal location, and expression in articular cartilage. *J. Biol. Chem.* 37: 21942-21949.
4. Jepsen, K., et al. 2002. A syndrome of joint laxity and impaired tendon integrity in Lumican- and fibromodulin-deficient mice. *J. Biol. Chem.* 38: 35532-35540.
5. Chakravarti, S. 2002. Functions of Lumican and fibromodulin: lessons from knockout mice. *Glycoconj. J.* 19: 287-293.
6. Vij, N., et al. 2005. Lumican regulates corneal inflammatory responses by modulating Fas-Fas ligand signaling. *Invest. Ophthalmol. Vis. Sci.* 46: 88-95.

SOURCE

Lumican (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Lumican of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27718 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

Lumican (L-20) is recommended for detection of precursor and mature Lumican of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Lumican siRNA (h): sc-43901 and Lumican siRNA (m): sc-44805.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.