

# Lumican (B-9): sc-166871

## 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. The gene encoding human Lumican maps to chromosome 12q21.33.

## CHROMOSOMAL LOCATION

Genetic locus: LUM (human) mapping to 12q21.33.

## SOURCE

Lumican (B-9) is a mouse monoclonal antibody raised against amino acids 19-108 mapping near the N-terminus of Lumican of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Lumican (B-9) is available conjugated to agarose (sc-166871 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166871 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166871 PE), fluorescein (sc-166871 FITC), Alexa Fluor® 488 (sc-166871 AF488), Alexa Fluor® 546 (sc-166871 AF546), Alexa Fluor® 594 (sc-166871 AF594) or Alexa Fluor® 647 (sc-166871 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166871 AF680) or Alexa Fluor® 790 (sc-166871 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Lumican (B-9) is recommended for detection of precursor and mature Lumican of human origin by Western Blotting (starting dilution 1:100, 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) 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, Lumican shRNA Plasmid (h): sc-43901-SH and Lumican shRNA (h) Lentiviral Particles: sc-43901-V.

Molecular Weight of Lumican: 46 kDa.

Positive Controls: Saos-2 whole cell lysate: sc-2235, BJ whole cell lysate: sc-364359 or SJRH30 cell lysate: sc-2287.

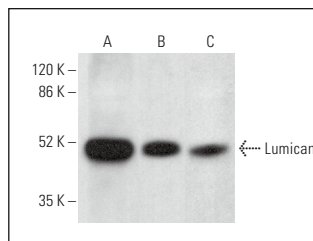
## STORAGE

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

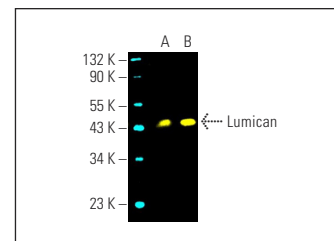
## RESEARCH USE

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

## DATA



Lumican (B-9): sc-166871. Western blot analysis of Lumican expression in Saos-2 (A), BJ (B) and SJRH30 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Lumican (B-9) Alexa Fluor® 488: sc-166871 AF488. Direct fluorescent western blot analysis of Lumican expression in Saos-2 (A) and BJ (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.

## SELECT PRODUCT CITATIONS

- Panis, C., et al. 2013. Putative circulating markers of the early and advanced stages of breast cancer identified by high-resolution label-free proteomics. *Cancer Lett.* 330: 57-66.
- Tan, H.T., et al. 2015. Unravelling the proteome of degenerative human mitral valves. *Proteomics* 15: 2934-2944.
- Roux, S.L., et al. 2016. Transforming growth factor β1 modulates the functional expression of the neurokinin-1 receptor in human keratocytes. *Curr. Eye Res.* 41: 1035-1043.
- Martins, C.O., et al. 2017. Rheumatic heart disease and myxomatous degeneration: differences and similarities of valve damage resulting from autoimmune reactions and matrix disorganization. *PLoS ONE* 12: e0170191.
- Brosseau, J.P., et al. 2018. NF1 heterozygosity fosters *de novo* tumorigenesis but impairs malignant transformation. *Nat. Commun.* 9: 5014.
- Moura, S.R., et al. 2020. miR-99a in bone homeostasis: regulating osteogenic lineage commitment and osteoclast differentiation. *Bone* 134: 115303.
- Espín, R., et al. 2021. Heterogeneity and cancer-related features in lymphangioleiomyomatosis cells and tissue. *Mol. Cancer Res.* 19: 1840-1853.
- Bouhri, N., et al. 2022. Transcriptomic analysis of a 3D blood-brain barrier model exposed to disturbed fluid flow. *Fluids Barriers CNS* 19: 94.
- Hu, G., et al. 2023. Lumican is a potential predictor on the efficacy of concurrent chemoradiotherapy in cervical squamous cell carcinoma. *Heliyon* 9: e18011.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.