SANTA CRUZ BIOTECHNOLOGY, INC.

Lubricin (E-19): sc-50079

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Lubricin, also designated proteoglycan-4 or megakaryocyte stimulating factor, plays an important role in boundary lubrication within articulating joints. The disulfide-linked dimer of Lubricin, bonded between Cys 1146 and Cys 1403, is essential for protein cleavage. Highly expressed in cartilage, liver and synovial tissue, Lubricin inhibits synovial cell adhesion to the cartilage surface, but also prevents the deposition of proteins from synovial fluid into cartilage. Defects in the gene encoding for Lubricin can cause Jakobs syndrome, also designated camptodactyly-arthropathy-coxa vara-pericarditis syndrome (CACP). CACP is an autosomal recessive disorder characterized by joint failure associated with noninflammatory synoviocyte hyperplasia and subinitimal fibrosis of the synovial capsule. Lubricin undergoes different levels of glycosylation and may be detected at varying molecular weights.

REFERENCES

1. Schaefer, D.B., et al. 2004. Lubricin reduces cartilage—cartilage integration. Biorheology 41: 503-508.
2. Elsaid, K.A., et al. 2005. Association of articular cartilage degradation and loss of boundary-lubricating ability of synovial fluid following injury and inflammatory arthritis. Arthritis Rheum. 52: 1746-1755.
3. Konttinen, Y.T., et al. 2005. The microenvironment around total hip replacement prostheses. Clin. Orthop. Relat. Res. 430: 28-38.
4. Rhee, D.K., et al. 2005. Consequences of disease-causing mutations on Lubricin protein synthesis, secretion and posttranslational processing. J. Biol. Chem. 280: 31325-31332.
5. Rhee, D.K., et al. 2005. The secreted glycoprotein lubricin protects cartilage surfaces and inhibits synovial cell overgrowth. J. Clin. Invest. 115: 622-631.

CHROMOSOMAL LOCATION

Genetic locus: PRG4 (human) mapping to 1q31.1.

SOURCE

Lubricin (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Lubricin 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-50079 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.

PROTOCOLS

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

APPLICATIONS

Lubricin (E-19) is recommended for detection of Lubricin of 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 Lubricin siRNA (h): sc-60972, Lubricin shRNA Plasmid (h): sc-60972-SH and Lubricin shRNA (h) Lentiviral Particles: sc-60972-V.

Molecular Weight of Lubricin: 280 kDa.

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.

RESEARCH USE

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