

Lubricin (1D5): sc-293466

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 subinital fibrosis of the synovial capsule. Lubricin undergoes different levels of glycosylation and may be detected at varying molecular weights.

REFERENCES

- Schaefer, D.B., et al. 2004. Lubricin reduces cartilage—cartilage integration. *Biorheology* 41: 503-508.
- 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.
- Kontinen, Y.T., et al. 2005. The microenvironment around total hip replacement prostheses. *Clin. Orthop. Relat. Res.* 430: 28-38.
- Rhee, D.K., et al. 2005. Consequences of disease-causing mutations on lubricin protein synthesis, secretion, and post-translational processing. *J. Biol. Chem.* 280: 31325-31332.
- 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 (1D5) is a mouse monoclonal antibody raised against amino acids 1305-1404 representing partial length Lubricin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Lubricin (1D5) is recommended for detection of Lubricin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

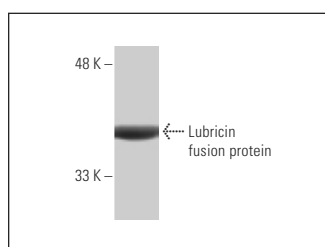
Suitable for use as control antibody for Lubricin siRNA (h): sc-60972, Lubricin shRNA Plasmid (h): sc-60972-SH and Lubricin shRNA (h) Lentiviral Particles: sc-60972-V.

Molecular Weight of Lubricin: 280 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Lubricin (1D5): sc-293466. Western blot analysis of human recombinant Lubricin fusion protein.

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 for detailed protocols and support products.