# Biglycan (m): 293T Lysate: sc-118812



The Power to Question

#### **BACKGROUND**

Biglycan, a class I small leucine rich proteoglycan (SLRP) present in the extracellular matrix, influences bone cell differentiation and proliferation. Biglycan contains two chondroitin sulfate glucosaminoglycan (GAG) chains attached near its amino terminus, whereas a closely related SLRP, Decorin, contains only one. Biglycan deficient specimens possess diminished capacity to produce bone cells precursors, a lessened response to TGF $\beta$ , reduced collagen synthesis, and increased apoptosis. Patients with rheumatoid arthritis express increased immunity to Biglycan where whereas osteoarthritis patients do not, suggesting that higher immunity to SLRPs may play a role in the pathogenesis of inflammatory rheumatic diseases.

## **REFERENCES**

- 1. Dodge, G.R., Diaz, A., Sanz-Rodriguez, C., Reginato, A.M. and Jimenez, S.A. 1998. Effects of IFN- $\gamma$  and TNF $\alpha$  on the expression of the genes encoding Aggrecan, Biglycan, and Decorin core proteins in cultured human chondrocytes. Arthritis Rheum. 41: 274-283.
- Klezovitch, O. and Scanu A.M. 2001. Domains of apolipoprotein E involved in the binding to the protein core of Biglycan of the vascular extracellular matrix: potential relationship between retention and anti-atherogenic properties of this apolipoprotein. Trends Cardiovasc. Med. 11: 263-268.
- Young, M.F., Bi, Y., Ameye, L. and Chen, X.D. 2002. Biglycan knockout mice: new models for musculoskeletal diseases. Glycoconj. J. 19: 257-262.
- 4. Goldberg, M., Septier, D., Rapoport, O., Young, M. and Ameye, L. 2002. Biglycan is a repressor of amelogenin expression and enamel formation: an emerging hypothesis. J. Dent. Res. 81: 520-524.
- Waddington, R.J., Roberts, H.C., Sugars, R.V. and Schenherr, E. 2003.
  Differential roles for small leucine-rich proteoglycans in bone formation.
  Eur. Cell. Mater. 6: 12-21.
- 6. Polgar, A., Falus, A., Koo, E., Ujfalussy, I., Sesztak, M., Szuts, I., Konrad, K., Hodinka, L., Bene, E., Meszaros, G., Ortutay, Z., Farkas, E., Paksy, A. and Buzas, E. 2003. Elevated levels of synovial fluid antibodies reactive with the small proteoglycans Biglycan and Decorin in patients with rheumatoid arthritis or other joint diseases. Rheumatology 42: 522-527.

#### CHROMOSOMAL LOCATION

Genetic locus: Bgn (mouse) mapping to X A7.3.

#### **PRODUCT**

Biglycan (m): 293T Lysate represents a lysate of mouse Biglycan transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

### **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### **PROTOCOLS**

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

#### **APPLICATIONS**

Biglycan (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Biglycan antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

#### **RESEARCH USE**

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com