

Biglycan (L-15): sc-27936

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- β , reduced collagen synthesis, and increased apoptosis. Patients with rheumatoid arthritis express increased immunity to Biglycan whereas osteoarthritis patients do not, suggesting that higher immunity to SLRPs may play a role in the pathogenesis of inflammatory rheumatic diseases.

CHROMOSOMAL LOCATION

Genetic locus: BGN (human) mapping to Xq28; Bgn (mouse) mapping to X A7.3.

SOURCE

Biglycan (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Biglycan of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27936 P, (100 μ g 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.

APPLICATIONS

Biglycan (L-15) is recommended for detection of precursor and mature Biglycan of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Biglycan (L-15) is also recommended for detection of precursor and mature Biglycan in additional species, including equine, canine, bovine and porcine. Suitable for use as control antibody for Biglycan siRNA (h): sc-43633, Biglycan siRNA (m): sc-45735, Biglycan shRNA Plasmid (h): sc-43633-SH, Biglycan shRNA Plasmid (m): sc-45735-SH, Biglycan shRNA (h) Lentiviral Particles: sc-43633-V and Biglycan shRNA (m) Lentiviral Particles: sc-45735-V.

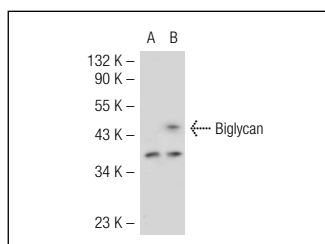
Molecular Weight of STEP: 45 kDa.

Positive Controls: Biglycan (m): 293T Lysate: sc-118812 or Hep G2 cell lysate: sc-2227.

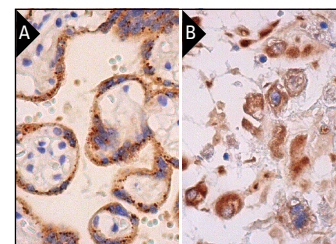
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Biglycan (L-15): sc-27936. Western blot analysis of Biglycan expression in non-transfected: sc-117752 (A) and mouse Biglycan transfected: sc-118812 (B) 293T whole cell lysates.



Biglycan (L-15): sc-27936. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual cells (B).

SELECT PRODUCT CITATIONS

- Lui, P.P., et al. 2010. Sustained expression of proteoglycans and collagen type III/type I ratio in a calcified tendinopathy model. *Rheumatology* 49: 231-239.
- Angel, P.M., et al. 2011. Networked-based characterization of extracellular matrix proteins from adult mouse pulmonary and aortic valves. *J. Proteome Res.* 10: 812-823.
- Calabrese, G.C., et al. 2011. Decorin and biglycan expression: its relation with endothelial heterogeneity. *Histol. Histopathol.* 26: 481-490.
- Burner, T., et al. 2012. Hyperglycemia reduces proteoglycan levels in tendons. *Connect. Tissue Res.* 53: 535-541.
- Welham, N.V., et al. 2013. Proteomic analysis of a decellularized human vocal fold mucosa scaffold using 2D electrophoresis and high-resolution mass spectrometry. *Biomaterials* 34: 669-676.

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Try **Biglycan (3E2): sc-100857**, our highly recommended monoclonal alternative to Biglycan (L-15).