

Biglycan (H-150): sc-33788

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.

REFERENCES

1. Dodge, G.R., et al. 1998. Effects of IFN- γ and TNF α on the expression of the genes encoding aggrecan, biglycan, and decorin core proteins in cultured human chondrocytes. *Arthritis Rheum.* 41: 274-283.
2. 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.
3. Young, M.F., et al. 2002. Biglycan knockout mice: new models for musculoskeletal diseases. *Glycoconj. J.* 19: 257-262.

SOURCE

Biglycan (H-150) is a rabbit polyclonal antibody raised against amino acids 131-280 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.

RESEARCH USE

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

APPLICATIONS

Biglycan (H-150) is recommended for detection of precursor and mature Biglycan and, to a lesser extent, Asporin and Decorin 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 (H-150) is also recommended for detection of precursor and mature Biglycan and, to a lesser extent, Asporin and Decorin in additional species, including equine, canine, bovine and porcine.

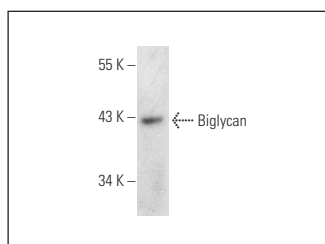
Molecular Weight of Biglycan: 45 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or SK-BR-3 cell lysate: sc-2218.

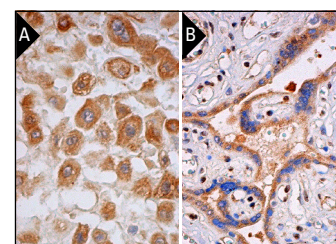
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Biglycan (H-150): sc-33788. Western blot analysis of Biglycan expression in SK-BR-3 whole cell lysate.



Biglycan (H-150): sc-33788. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

SELECT PRODUCT CITATIONS

1. Coulson-Thomas, V.J., et al. 2010. Fibroblast and prostate tumor cell cross-talk: fibroblast differentiation, TGF- β , and extracellular matrix down-regulation. *Exp. Cell Res.* 316: 3207-3226.
2. Honardoust, D., et al. 2011. Small leucine-rich proteoglycans, decorin and fibromodulin, are reduced in postburn hypertrophic scar. *Wound Repair Regen.* 19: 368-378.
3. Coulson-Thomas, V.J., et al. 2011. Colorectal cancer desmoplastic reaction up-regulates collagen synthesis and restricts cancer cell invasion. *Cell Tissue Res.* 346: 223-236.

STORAGE

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



Try **Biglycan (3E2): sc-100857**, our highly recommended monoclonal alternative to Biglycan (H-150).