

# Decorin (G-1): sc-518096

## BACKGROUND

Decorin is a small leucine-rich proteoglycan (SLRP) family member that consists of a glycosaminoglycan chain-containing core protein. The core protein contains ten leucine rich repeats that contain sites for glycosylation, flanked by disulfide bond stabilizing loops. Decorin binds to Collagen Type I, II and IV *in vivo* and promotes the formation of fibers with variations in stability and solubility. The Decorin core protein binds to growth factors, intercellular matrix molecules, such as Fibronectin and Thrombospondin, and to the Decorin endocytosis receptor. Decorin binds to and inhibits TGF $\beta$  and is a direct or indirect negative modulator of TGF $\beta$  synthesis. Inhibition of Decorin core protein gene expression by the combination of IFN- $\gamma$  and TNF $\alpha$  may contribute to cartilage destruction that is characteristic of inflammatory joint diseases. The human Decorin gene maps to chromosome 12q21.33 and encodes a 359 amino acid protein.

## REFERENCES

1. Krusius, T. and Ruoslahti, E. 1986. Primary structure of an extracellular matrix proteoglycan core protein deduced from cloned cDNA. *Proc. Natl. Acad. Sci. USA* 83: 7683-7687.
2. Dyne, K.M., et al. 1996. Deficient expression of the small proteoglycan Decorin in a case of severe/lethal osteogenesis imperfecta. *Am. J. Med. Genet.* 63: 161-166.
3. Dodge, G.R., et al. 1998. Effects of interferon- $\gamma$  and tumor necrosis factor  $\alpha$  on the expression of the genes encoding aggrecan, Biglycan, and Decorin core proteins in cultured human chondrocytes. *Arthritis Rheum.* 41: 274-283.
4. Stander, M., et al. 1999. Transforming growth factor- $\beta$  and p-21: multiple molecular targets of Decorin-mediated suppression of neoplastic growth. *Cell Tissue Res.* 296: 221-227.

## CHROMOSOMAL LOCATION

Genetic locus: DCN (human) mapping to 12q21.33.

## SOURCE

Decorin (G-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 24-49 near the N-terminus of Decorin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Decorin (G-1) is available conjugated to agarose (sc-518096 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518096 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518096 PE), fluorescein (sc-518096 FITC), Alexa Fluor<sup>®</sup> 488 (sc-518096 AF488), Alexa Fluor<sup>®</sup> 546 (sc-518096 AF546), Alexa Fluor<sup>®</sup> 594 (sc-518096 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-518096 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-518096 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-518096 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Decorin (G-1) is recommended for detection of Decorin of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 Decorin siRNA (h): sc-40993, Decorin shRNA Plasmid (h): sc-40993-SH and Decorin shRNA (h) Lentiviral Particles: sc-40993-V.

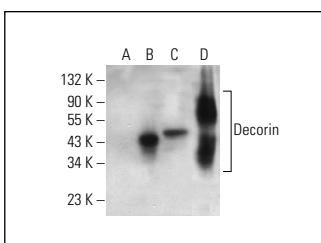
Molecular Weight of Decorin: 43 kDa.

Positive Controls: Decorin (h): 293 Lysate: sc-159946 or human skin extract: sc-363777.

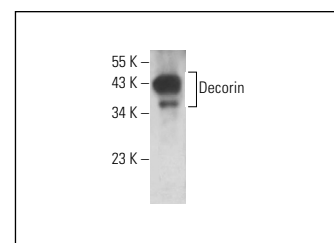
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Decorin (G-1): sc-518096. Western blot analysis of Decorin expression in non-transfected 293T: sc-117752 (A), human Decorin transfected 293T: sc-117752 (B) and sc-170640 (C) whole cell lysates and human skin tissue extract (D). Detection reagent used: m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM.



Decorin (G-1): sc-518096. Western blot analysis of human recombinant Decorin. Detection reagent used: m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM.

## 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](http://www.scbt.com) for detailed protocols and support products.