

# Decorin (M-16): sc-22609

## 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., et al. 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.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 125255. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. LocusLink Report (LocusID: 1634). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: Dcn (mouse) mapping to 10 C3.

## SOURCE

Decorin (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Decorin of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-22609 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Decorin (M-16) is recommended for detection of Decorin of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Decorin (M-16) is also recommended for detection of Decorin in additional species, including equine.

Suitable for use as control antibody for Decorin siRNA (m): sc-40994, Decorin shRNA Plasmid (m): sc-40994-SH and Decorin shRNA (m) Lentiviral Particles: sc-40994-V.

Molecular Weight of Decorin: 43 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

1. Hiroki, E., et al. 2011. A comparative study of myostatin, follistatin and decorin expression in muscle of different origin. Anat. Sci. Int. 86: 151-159.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.