SANTA CRUZ BIOTECHNOLOGY, INC.

Decorin (888E12): sc-47771

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 TGFβ and is a direct or indirect negative modulator of TGFβ synthesis. Inhibition of Decorin core protein gene expression by the combination of IFN-γ and TNFα 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., Valli, M., Forlino, A., Mottes, M., Kresse, H. and Cetta, G. 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., Diaz, A., Sanz-Rodriguez, C., Reginato, A.M. and Jimenez, S.A. 1998. Effects of interferon-γ and tumor necrosis factor a 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., Naumann, U., Wick, W. and Weller, M. 1999. Transforming growth factor-β 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™. 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 (human) mapping to 12q21.33.

SOURCE

Decorin (888E12) is a mouse monoclonal antibody raised against Decorin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Decorin (888E12) is recommended for detection of Decorin of human 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), 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).

Decorin (888E12) is also recommended for detection of Decorin in additional species, including bovine.

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.

SELECT PRODUCT CITATIONS

1. Gopinath, P., Veluswami, S., Gopisetty, G., Sundersingh, S., Rajaraman, S. and Thangarajan, R. 2022. Identification of tumor biomarkers for pathological complete response to neoadjuvant treatment in locally advanced breast cancer. Breast Cancer Res. Treat. 194: 207-220.

RESEARCH USE

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

PROTOCOLS

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