



**MONOCLONAL ANTIBODY**

*For research use only. Not for clinical diagnosis*

**Catalog No. PRPG-DC-M01**

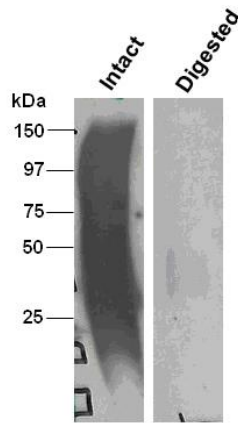
# Anti- Decorin (889C7)

## BACKGROUND

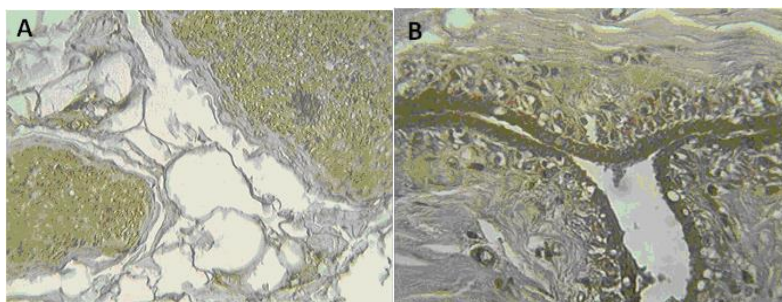
Decorin is a ubiquitous smaller ECM proteoglycan that is closely related in structure to another similar proteoglycan, biglycan, and which belongs to the small leucine-rich proteoglycan (SLRP) subfamily. Its core protein may be frequently found associated with the cell surface and normally carries one single chondroitin sulfate or dermatan sulfate chain. Decorin binds to and modulates the signaling of the epidermal growth factor receptor and other members of the ErbB family of receptor tyrosine kinases. It exerts its antitumor activity by a dual mechanism.\*

|                         |  |
|-------------------------|--|
| <b>Product type</b>     | Primary antibodies   |
| <b>Immunogen</b>        | Purified bovine decorin  |
| <b>Raised in</b>        | Mouse  |
| <b>Myeloma</b>          | -  |
| <b>Clone number</b>     | 889C7  |
| <b>Isotype</b>          | IgM  |
| <b>Host</b>             | -  |
| <b>Source</b>           | Hybridoma cell culture   |
| <b>Purification</b>     | -  |
| <b>Form</b>             | Liquid   |
| <b>Storage buffer</b>   | Supernatant supplemented with 0.05% NaN <sub>3</sub>   |
| <b>Concentration</b>    | ND   |
| <b>Volume</b>           | 2 mL   |
| <b>Label</b>            | Unlabeled  |
| <b>Specificity</b>      | Decorin  |
| <b>Cross reactivity</b> | Human, Bovine<br>Other species have not been tested.   |
| <b>Storage</b>          | Store at 4°C for short-term storage and -20°C for prolonged storage<br>Aliquot to avoid cycles of freeze / thaw. |
| <b>Other</b>            | <b>Data Link</b> : UniProtKB/Swiss-Prot <a href="#">P21793</a>   |

|                          |  |
|--------------------------|--|
| <b>Application notes</b> | IWB, IHC, ELISA  |
| Recommended dilutions    | <ul style="list-style-type: none"><li>Western blotting : 1/10 - 1/50<br/>Intact form, smeared band 50-140 kDa; chondroitinase-digested band at 60-70 kDa; reacts poorly with chondroitinase digested decorin</li><li>Immunohistochemistry : 1/25 - 1/75 (paraffin-embedded)<br/>MAb 889C7 stains connective ECMs of a wide range of organs and tissues.<br/>Chondroitinase ABC predigestion of the sections alters the staining pattern.</li><li>ELISA : 1/10 - 1/150</li></ul> <p>Other applications have not been tested.<br/>Optimal dilutions/concentrations should be determined by the end user.</p> |



**Fig.1** Western blotting on intact (left) and chondroitinase ABC-digested (right) bovine decorin after SDS-PAGE on 8% gels.



**Fig.2** Immunohistochemistry on (A) human prostate and (B) human breast.

**RELATED PRODUCTS:**

| Product Name  | Maker | Cat#          |
|---|-------|---------------|
| Anti Aggrecan (6F4) Monoclonal Antibody             | CAC   | PRPG-AG-M01   |
| Anti Aggrecan (5D3) Monoclonal Antibody             | CAC   | PRPG-AG-M02   |
| Anti Aggrecan (5G2) Monoclonal Antibody             | CAC   | PRPG-AG-M03   |
| Anti Aggrecan (7B7) Monoclonal Antibody             | CAC   | PRPG-AG-M04   |
| Anti Versican/CSPG2 (5C12) Monoclonal Antibody      | CAC   | PRPG-VS-M01   |
| Anti Versican/CSPG2 (4C5) Monoclonal Antibody       | CAC   | PRPG-VS-M02   |
| Anti NG2 / CSPG4 (2164H5) Monoclonal Antibody       | CAC   | PRPG-NG-M01   |
| Anti COMP (484D1) Monoclonal Antibody               | CAC   | PRPG-CP-M01   |
| Anti COMP (490D11) Monoclonal Antibody              | CAC   | PRPG-CP-M02   |
| Anti Keratan sulfate (373E1) Monoclonal Antibody    | CAC   | PRPG-KS-M01   |
| Anti Decorin (889C7) Monoclonal Antibody            | CAC   | PRPG-DC-M01   |
| Anti Fibromodulin (636B12) Monoclonal Antibody      | CAC   | PRPG-FBM-M01  |
| Anti Biglycan (905A7) Monoclonal Antibody           | CAC   | PRPG-BG-M01   |
| Anti XTP1 (2191H1) Monoclonal Antibody              | CAC   | PRPG-XTP-M01  |
| Anti SDP35 (2200D12) Monoclonal Antibody            | CAC   | PRPG-SDP-M01  |
| Anti Laminin $\alpha$ 4 (652C4) Monoclonal Antibody | CAC   | PRPG-LA4-M01  |
| Anti Collagen 12 (378D5) Monoclonal Antibody        | CAC   | PRPG-CO12-M01 |

## \* < BACKGROUND : Decorin >

Decorin is a ubiquitous smaller ECM proteoglycan that is closely related in structure to another similar proteoglycan, biglycan, and which belongs to the small leucine-rich proteoglycan (SLRP) subfamily. Its core protein may be frequently found associated with the cell surface and normally carries one single chondroitin sulfate or dermatan sulfate chain. Its molecular mass in fully glycosylated/glycanated form varies from 90-240 kDa, while its unglycosylated/unglycanated core protein has a Mr of about 45 kDa. Decorin interacts with several ECM components, including fibrillar collagens, fibronectin, thrombospondin and C1q and plays a role in matrix assembly, in particular collagen fibrillogenesis. Decorin is upregulated in cancer, inflamed and degenerating tissues, and is critically involved in wound-healing. Infusion of decorin into experimental rodent spinal cord injuries has been shown to suppress scar formation and promote axon growth. In tumours it is modulated in the neoplastic cells (often up-regulated) and in the tumour microenvironment (stroma). The proteoglycan affects the biology of various types of cancer by down-regulating the activity of several receptors involved in cell growth and survival. Decorin binds to and modulates the signaling of the epidermal growth factor receptor and other members of the ErbB family of receptor tyrosine kinases. It exerts its antitumor activity by a dual mechanism: via inhibition of these key receptors through their physical downregulation coupled with attenuation of their signalling, and by binding to and sequestering TGF-beta. Decorin also modulates the insulin-like growth factor receptor and the low-density lipoprotein receptor-related protein-1, which indirectly affects the TGF-beta receptor pathway. Gene deletion of decorin causes skin defects, manifested as irregularly shaped collagen type III fibrils of the dermis. There are multiple alternative spliced forms of decorin, whereas mutations in the decorin gene cause congenital stromal corneal dystrophy.

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