

MONOCLONAL ANTIBODY

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.*

Product type	Primary antibodies		
Immunogen	Purified bovine decorin		
Rased in	Mouse		
Myeloma	-		
Clone number	889C7		
Isotype	IgM		
Host	-		
Source	Hybridoma cell culture		
Purification	-		
Form	Liquid		
Storage buffer	Supernatant supplemented with 0.05% NaN3		
Concentration	ND		
Volume	2 mL		
Label	Unlabeled		
Specificity	Decorin		
Cross reactivity	Human, Bovine		
	Other species have not been tested.		
Storage	Store at 4°C for short-term storage and -20°C for prolonged storage		
	Aliquot to avoid cycles of freeze / thaw.		
Other	Data Link : UniProtKB/Swiss-Prot P21793		
Application notes Recommended dilutions	 IWB, IHC, ELISA Western blotting : 1/10 - 1/50 Intact form, smeared band 50-140 kDa; chondrotinase-digested band at 60-70 kDa; reacts poorly with chondroitinase digested decorin Immunohistochemistry : 1/25 - 1/75 (paraffin-embedded) MAb 889C7 stains connective ECMs of a wide range of organs and tissues. Chondroitinase ABC predigestion of the sections alters the staining pattern. ELISA : 1/10 - 1/150 Other applications have not been tested. Optimal dilutions/concentrations should be determined by the end user. 		
References	-		



ANTIBODY CHARACTERIZATION



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 α4 (652C4) Monoclonal Antibody	CAC	PRPG-LA4-M01
Anti Collagen 12 (378D5) Monoclonal Antibody	CAC	PRPG-CO12-M01

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* < 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 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 multiple alternative spliced forms of decorin, whereas mutations in the decorin gene cause congenital stromal corneal dystrophy.

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