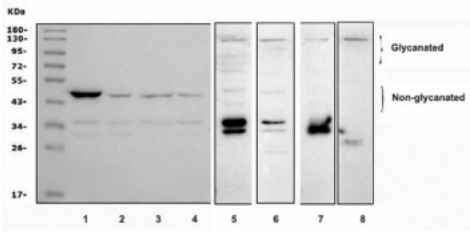
Decorin Antibody for WB / DCN (R30372)

Catalog No.	Formulation	Size
R30372	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P07585
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Decorin antibody is available for research use only.



Decorin Antibody for WB. Western blot analysis of the Decorin antibody for WB in human, rat, and mouse cell and tissue lysates. Lysates from 1) human MCF-7, 2) human HeLa, 3) human HepG2, 4) human SW620, 5) rat brain, 6) rat PC-3, 7) mouse brain, and 8) mouse SP2/0 were analyzed. Decorin has a predicted molecular weight of approximately 40 kDa for the non-glycosylated core protein. A band near this size is observed in several lanes, consistent with the Decorin core protein. Higher molecular weight bands between approximately 90-140 kDa are also detected and are consistent with glycosylated Decorin species, reflecting the addition of dermatan sulfate or chondroitin sulfate glycosaminoglycan chains. The presence of both lower and higher molecular weight bands is consistent with the known post-translational modification profile of Decorin as a secreted extracellular matrix proteoglycan.

Description

Decorin Antibody for WB detects Decorin, a secreted small leucine-rich proteoglycan encoded by the DCN gene that is widely distributed in connective tissues and extracellular matrix-rich organs. Decorin plays a central role in collagen fibrillogenesis, binding to type I and type III collagen fibrils and regulating fiber diameter, spacing, and tensile strength. In western blot applications, Decorin is typically identified as a glycosylated proteoglycan core protein that may migrate as a

higher molecular weight band due to post-translational modification.

This Decorin antibody is optimized for WB analysis and supports detection of Decorin in tissue lysates and cultured cells. Decorin is synthesized as a precursor protein that undergoes secretion and addition of a dermatan sulfate or chondroitin sulfate glycosaminoglycan chain. As a result, apparent migration on SDS-PAGE can vary depending on the extent of glycosylation and tissue source. Enzymatic removal of glycosaminoglycan chains may reduce the observed molecular weight closer to the predicted core protein size. These biochemical features are important when interpreting WB band patterns.

DCN antibody, also referred to as Decorin antibody and small leucine-rich proteoglycan decorin antibody, recognizes a matrix-associated proteoglycan that interacts with multiple signaling molecules, including transforming growth factor beta and various receptor tyrosine kinases. Through these interactions, Decorin influences cell proliferation, differentiation, and extracellular matrix remodeling. DCN expression is particularly prominent in heart, lung, skeletal muscle, skin, placenta, and prostate stroma, where connective tissue architecture is abundant.

Alterations in Decorin expression have been associated with fibrosis, abnormal wound healing, and tumor-associated stromal remodeling. In research contexts, analysis of Decorin protein levels by western blot may assist in studies of extracellular matrix organization, desmoplasia, and growth factor signaling pathways. This Decorin Antibody for WB is suitable for detecting Decorin expression in research applications and is available from NSJ Bioreagents.

This antibody can be compared with our Decorin Antibody (clone DCN/3521) for consistent detection of DCN across extracellular matrix and proteoglycan biology studies.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Decorin antibody for WB may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Decorin (TFRCVYVRSAIQLGNYK) was used as the immunogen for this Decorin antibody.

Storage

After reconstitution, the Decorin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.