

# Human Decorin / DCN / SLRR1B Protein (His Tag)

Catalog Number: 10189-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CSCD; DSPG2; PG40; PGII; PGS2; SLRR1B

### Protein Construction:

A DNA sequence encoding the human Decorin (NP\_001911.1) (Met 1-Lys 359) was expressed, with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Gly 17

### Molecular Mass:

The recombinant human Decorin consists of 354 amino acids and has a predicted molecular mass of 39.4 kDa. As a result of different glycosylation, the apparent molecular mass of rhDecorin is approximately 45 kDa or higher in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

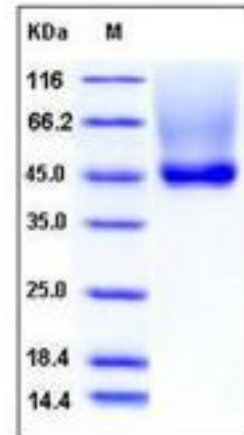
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Decorin is a ubiquitous small cellular or pericellular matrix proteoglycan and is closely related in structure to biglycan protein. It belongs to the small leucine-rich proteoglycan (SLRP) family and consists of a core protein and a covalently linked glycosaminoglycan chain which is either chondroitin sulfate (CS) or dermatan sulfate (DS). As a component of connective tissue, decorin interacts with several extracellular matrix components, such as type I collagen and fibronectin, and plays a role in matrix assembly. Decorin resides in the tumor microenvironment and affects the biology of various types of cancer by downregulating 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 signaling, and by binding to and sequestering TGFβ. Decorin also modulates the insulin-like growth factor receptor and the low-density lipoprotein receptor-related protein 1, which indirectly affects the TGFβ receptor pathway. Decorin plays significant roles in tissue development and assembly, as well as playing both direct and indirect signaling roles.

## References

1. Mogyorsí A, *et al.* (1999) What is the role of decorin in diabetic kidney disease? *Nephrol Dial Transplant.* 14(5): 1078-81.
2. Reed CC, *et al.* (2002) The role of decorin in collagen fibrillogenesis and skin homeostasis. *Glycoconj J.* 19(4-5): 249-55.
3. Goldoni S, *et al.* (2008) Tumor microenvironment: Modulation by decorin and related molecules harboring leucine-rich tandem motifs. *Int J Cancer.* 123(11): 2473-9.

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