

# Recombinant Human Decorin/PG-S2/DCN Protein

Catalog No.: RP01344 Recombinant

## **Sequence Information**

Species Gene ID Swiss Prot Human 1634 P07585-1

## Tags

C-His

#### **Synonyms**

DCN;CSCD;DSPG2;PG40;PGII;PGS2;SLRR 1B;decorin;Decorin

## **Product Information**

Source Purification HEK293 cells > 95% by SDS-PAGE.

Calculated MW Observed MW

38.83 kDa 45 kDa

#### **Endotoxin**

Please contact us for more information.

#### **Formulation**

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

#### **Contact**

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## **Background**

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 TGFbeta. Decorin also modulates the insulin-like growth factor receptor and the low-density lipoprotein receptor-related protein 1, which indirectly affects the TGFbeta receptor pathway. Decorin plays significant roles in tissue development and assembly, as well as playing both direct and indirect signaling roles.

#### **Basic Information**

#### **Description**

Recombinant Human Decorin/PG-S2/DCN Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gly17-Lys359) of human Decorin/DCN/CSCD (Accession #NP\_598010.1) fused with 6×His tag at the Cterminus.

## **Bio-Activity**

Measured by its binding ability in a functional ELISA. Immobilized Human DCN at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind DCN Rabbit pAb with a linear range of 0.5-141 ng/mL.

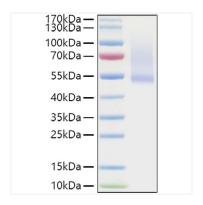
## Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

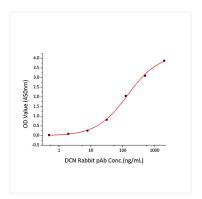
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Recombinant Human Decorin/PG-S2/DCN Protein was determined by SDS-PAGE with Coomassie Blue, showing bands at 45 kDa.



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