

Human Decorin / DCN / SLRR1B Protein (Fc Tag)

Catalog Number: 10189-H01H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CSCD; DSPG2; PG40; PGII; PGS2; SLRR1B; DC; DSPG2; mDcn; PG40; PGII; PGS2; SLRR1B

Protein Construction:

A DNA sequence encoding the mature form of human Decorin (NP_001911.1) (Asp 31-Lys 359) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE and SEC-HPLC Analysis.

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: Glu 20

Molecular Mass:

The recombinant human Decorin/Fc is a disulfide-linked homodimer. The reduced monomer consists of 566 amino acids and has a predicted molecular mass of 63. kDa. As a result of glycosylation, rh Decorin/Fc monomer migrates as an approximately 70-75 kDa band 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:

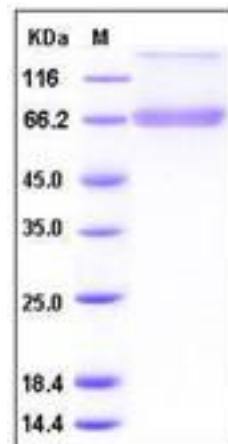
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 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.

References

1. Mogyorsi 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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