

Recombinant Human Decorin Protein(His Tag)

Catalog Number: PDMH100329

Note: Centrifuge before opening to ensure complete recovery of vial contents.

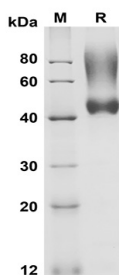
Description

Species	Human
Source	Mammalian-derived Human Decorin proteins Asp31-Lys359, with an C-terminal His
Calculated MW	36.1 kDa
Observed MW	45 kDa
Accession	P07585
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human Decorin proteins, 2 µg/lane of

Recombinant Human Decorin proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 45 KD

Background

For Research Use Only

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Rev. V1.7

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.