

Recombinant Rat DCN Protein (Met1-Lys354), His-tagged

Cat. No. DCN-959R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat DCN (Decorin) Protein (NP_077043.1) (Met1-Lys354) was produced by HEK293 Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.
Species	Rat
Source	HEK293
ProteinLength	Met1-Lys354
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

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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.

Predicted N Terminal	Gly 17
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human DCN consists of 349 amino acids and predicts a molecular mass of 39.5 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 90 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

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Gene Name	Dcn decorin [Rattus norvegicus]
Official Symbol	DCN
Synonyms	DCN; decorin; DSPG; PG40; PG-S2; bone proteoglycan II; MGC94682;
Gene ID	29139
mRNA Refseq	NM_024129
Protein Refseq	NP_077043
UniProt ID	Q01129

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