

Active Recombinant Mouse HSPG2 protein, His-tagged

Cat. No. HSPG2-02M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse HSPG2 protein, fused to His-tag, was expressed in CHO.
Species	Mouse
Source	CHO
Description	This gene encodes the perlecan protein, which consists of a core protein to which three long chains of glycosaminoglycans (heparan sulfate or chondroitin sulfate) are attached. The perlecan protein is a large multidomain proteoglycan that binds to and cross-links many extracellular matrix components and cell-surface molecules. It has been shown that this protein interacts with laminin, prolargin, collagen type IV, FGFBP1, FBLN2, FGF7 and transthyretin, etc., and it plays essential roles in multiple biological activities. Perlecan is a key component of the vascular extracellular matrix, where it helps to maintain the endothelial barrier function. It is a potent inhibitor of smooth muscle cell proliferation and is thus thought to help maintain vascular homeostasis. It can also promote growth factor (e.g., FGF2) activity and thus stimulate endothelial growth and re-generation. It is a major component of basement membranes, where it is involved in the stabilization of other molecules as well as being involved with glomerular permeability to macromolecules and cell adhesion. Mutations in this gene cause Schwartz-Jampel syndrome type 1, Silverman-Handmaker type of dyssegmental dysplasia, and tardive dyskinesia. Alternative splicing of this gene results in multiple transcript variants.
Form	Lyophilized from a 0.2 µm filtered solution in PBS.

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Bio-activity	Measured by the ability of the immobilized protein to support the adhesion of SVEC4-10 mouse vascular endothelial cells. The ED50 for this effect is 0.75-4.5 µg/mL.
Molecular Mass	Predicted Molecular Mass: 75.8 kDa SDS-PAGE: 85-95 kDa, reducing conditions
N-terminal Sequence Analysis	Glu3683
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%
Applications	Bioactivity
Storage	12 months from date of receipt, ≤ -20 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, ≤ -20 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 300 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	Hspg2 perlecan (heparan sulfate proteoglycan 2) [Mus musculus (house mouse)]
Official Symbol	Hspg2

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Synonyms Endorepellin; HSPG; HSPG2; PLCSchwartz-Jampel syndrome 1 (chondrodystrophic myotonia); PRCAN; Perlecan; SJA; SJS; SJS1; basement membrane-specific heparan sulfate proteoglycan core protein; endorepellin (domain V region); heparan sulfate proteoglycan 2; perlecan proteoglycan

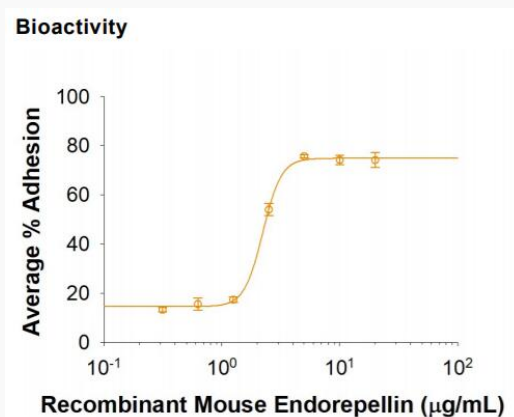
Gene ID 15530

mRNA Refseq NM_008305

Protein Refseq NP_032331

UniProt ID Q05793

Bioactivity



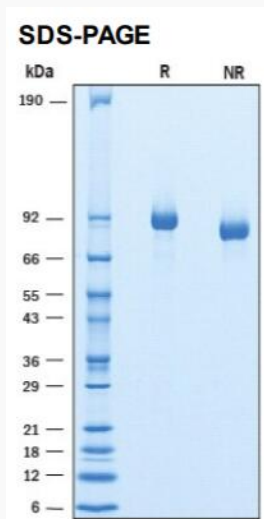
Immobilized Recombinant Mouse Endorepellin supports the adhesion of SVEC410 mouse vascular endothelial cells. The ED50 for this effect is 0.754.5 µg/mL.

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SDSPAGE



2 µg/lane of Recombinant Mouse Endorepellin/Perlecan was resolved with SDS-PAGE under reducing ® and nonreducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 85/95 kDa.

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