# abcam

# Product datasheet

# Recombinant Human Heparan Sulfate Proteoglycan 2/Perlecan protein (Tagged) ab114285

# 1 图像

### 描述

产品名称 重组人Heparan Sulfate Proteoglycan 2/Perlecan蛋白(Tagged)

表达系统 Wheat germ Accession P98160

**蛋白长度** Protein fragment

无动物成分 No

性质 Recombinant

**种属** Human

序列 GLRAYDGLSLPEDIETVTASQMRWTHSYLSDDEDMLADSISG

**DDLGSGDL** 

 ${\sf GSGDFQMVYFRALVNFTRSIEYSPQLEDAGSREFREVSEAVV}$ 

DTLESEYL KIPGDQVVSV

预测分子量 38 kDa including tags

**氨基酸** 25 to 134

标签 GST tag N-Terminus

#### 技术指标

Our Abpromise guarantee covers the use of ab114285 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应**用** ELISA

SDS-PAGE Western blot

形式 Liquid

补充说明 Protein concentration is above or equal to  $0.05~\mu g/\mu L$ .

This product was previously labelled as Heparan Sulfate Proteoglycan 2.

#### 制备和贮存

#### 稳定性和存储

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.3% Glutathione, 0.79% Tris HCI

#### 常规信息

### 功能

Integral component of basement membranes. Component of the glomerular basement membrane (GBM), responsible for the fixed negative electrostatic membrane charge, and which provides a barrier which is both size- and charge-selective. It serves as an attachment substrate for cells. Plays essential roles in vascularization. Critical for normal heart development and for regulating the vascular response to injury. Also required for avascular cartilage development. Endorepellin in an anti-angiogenic and anti-tumor peptide that inhibits endothelial cell migration, collagen-induced endothelial tube morphogenesis and blood vessel growth in the chorioallantoic membrane. Blocks endothelial cell adhesion to fibronectin and type I collagen. Anti-tumor agent in neovascularization. Interaction with its ligand, integrin alpha2/beta1, is required for the anti-angiogenic properties. Evokes a reduction in phosphorylation of receptor tyrosine kinases via alpha2/beta1 integrin-mediated activation of the tyrosine phosphatase, PTPN6.

The LG3 peptide has anti-angiogenic properties that require binding of calcium ions for full activity.

#### 组织特异性

# 疾病相关

Found in the basement membranes.

Defects in HSPG2 are the cause of Schwartz-Jampel syndrome (SJS1) [MIM:255800]; a rare autosomal recessive disorder characterized by permanent myotonia (prolonged failure of muscle relaxation) and skeletal dysplasia, resulting in reduced stature, kyphoscoliosis, bowing of the diaphyses and irregular epiphyses.

Defects in HSPG2 are the cause of dyssegmental dysplasia Silverman-Handmaker type (DDSH) [MIM:224410]. The dyssegmental dysplasias are rare, autosomal recessive skeletal dysplasias with anisospondyly and micromelia. There are two recognized types: the severe, lethal DDSH and the milder Rolland-Desbuquois form. Individuals with DDSH also have a flat face, micrognathia, cleft palate and reduced joint mobility, and frequently have an encephalocoele. The endochondral growth plate is short, the calcospherites (which are spherical calcium-phosphorus crystals produced by hypertrophic chondrocytes) are unfused, and there is mucoid degeneration of the resting cartilage.

#### 序列相似性

Contains 4 EGF-like domains.

Contains 22 lg-like C2-type (immunoglobulin-like) domains.

Contains 11 Iaminin EGF-like domains.
Contains 3 Iaminin G-like domains.
Contains 3 Iaminin IV type A domains.
Contains 4 LDL-receptor class A domains.

Contains 1 SEA domain.

#### 翻译后修饰

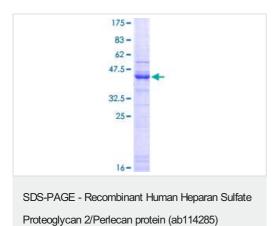
Proteolytic processing produces the C-terminal angiogenic peptide, endorepellin. This peptide can be further processed to produce the LG3 peptide.

N- and O-glycosylated; contains three heparan sulfate chains. The LG3 peptide contains at least three and up to five potential O-glycosylation sites but no N-glycosylation.

#### 细胞定位

Secreted > extracellular space > extracellular matrix > basement membrane.

## 图片



12.5% SDS-PAGE showing ab114285 at approximately 37.73kDa stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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