abcam

Product datasheet

Anti-Heparan Sulfate Proteoglycan 2/Perlecan antibody [A76] ab26265

8 References

Overview

Product name	Anti-Heparan Sulfate Proteoglycan 2/Perlecan antibody [A76]
Description	Mouse monoclonal [A76] to Heparan Sulfate Proteoglycan 2/Perlecan
Host species	Mouse
Specificity	This antibody is highly specific for Heparan Sulfate Proteoglycan 2/Perlecan. There is no evidence for cross-reactivity with other connective tissue proteins (vitronectin, fibronectin, elastin, collagen, laminin) but it does cross-react with human thrombospondin.
Tested applications	**Suitable for:** IP, WB, ELISA, IHC-Fr, IHC-P
Species reactivity	**Reacts with:** Sheep, Cow, Human
Immunogen	Tissue, cells or virus corresponding to Cow Heparan Sulfate Proteoglycan 2/Perlecan.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituents: 0.0268% PBS, 2.9% Sodium chloride
Purity	Protein G purified
Purification notes	Protein-A/G purified.
Clonality	Monoclonal
Clone number	A76
Myeloma	Sp2/0

Isotype IgG1

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab26265 in the following tested applications.

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

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. PubMed: 18568676
AP		Use at an assay dependent concentration.

Target

Function 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.

Tissue specificity Found in the basement membranes.

Involvement in disease 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.
Sequence similarities	Contains 4 EGF-like domains. Contains 22 Ig-like C2-type (immunoglobulin-like) domains. Contains 11 laminin EGF-like domains. Contains 3 laminin G-like domains. Contains 3 laminin IV type A domains. Contains 4 LDL-receptor class A domains. Contains 1 SEA domain.
Post-translational modifications	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.
Cellular localization	Secreted > extracellular space > extracellular matrix > basement membrane.

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