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Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide
Rat Monoclonal Antibody [Clone SPM255]
Catalog # AH11474

Specification

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Product Information

Application	**IHC-P**
Primary Accession	P98160
Other Accession	3339, 562227
Reactivity	**Human, Mouse, Monkey, Pig, Fish, Bovine**
Host	**Rat**
Clonality	**Monoclonal**
Isotype	**Rat / IgG2a, kappa**
Calculated MW	**>400kDa KDa**

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Additional Information

Gene ID 3339

Other Names
Basement membrane-specific heparan sulfate proteoglycan core protein, HSPG, Perlecan, PLC, Endorepellin, LG3 peptide, HSPG2

Application Note
IHC~~1:100~500<br \>IF~~1:50~200<br \>FC~~1:10~50

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Protein Information

Name HSPG2

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 (PubMed:12435733, PubMed:<a

href="http://www.uniprot.org/citations/15591058" target="_blank">15591058, PubMed:19789387). In muscle, it is essential for localizing acetylcholinesterase (AChE) at the neuromuscular junctions (NMJ), most probably acting as an adapter that links the acetylcholinesterase collagenic tail peptide (COLQ) to alpha- dystroglycan, and is therefore involved in the down-regulation of colinergic synaptic transmission (By similarity). [LG3 peptide]: Has anti-angiogenic properties that require binding of calcium ions for full activity.

Cellular Location
Secreted, extracellular space, extracellular matrix, basement membrane. Secreted

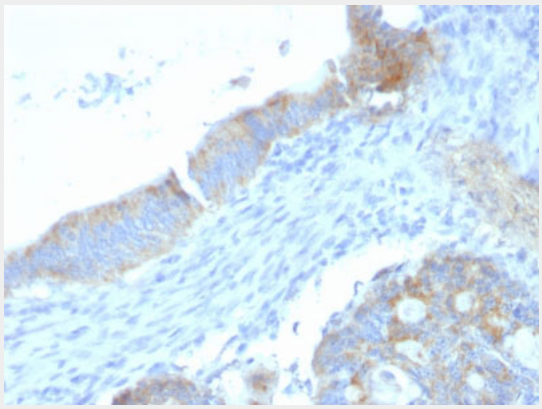
Tissue Location
Detected in cerebrospinal fluid, fibroblasts and urine (at protein level).

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Testicular Carcinoma stained with Heparan Sulfate Monoclonal Antibody (SPM255).

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - Background

This MAb specifically precipitates heterogeneous material of high MW, identified as perlecan, a major heparan-sulfate proteoglycan (HSPG) within all basement membranes and cell surfaces. It does not cross-react with laminin, fibronectin, or dermatran sulfate proteoglycan. Because of perlecan s strategic location and ability to store and protect growth factors, it has been strongly implicated in the control of tumor cell growth and metastatic behavior. Perlecan possesses

angiogenic and growth-promoting attributes primarily by acting as a co-receptor for basic fibroblast growth factor (FGF-2). Suppression of perlecan causes substantial inhibition of neoplastic growth and neovascularization. Thus, perlecan is a potent inducer of neoplasm growth and angiogenesis in vivo and therapeutic interventions targeting this key modulator of tumor progression may improve neoplastic treatment.

Heparan Sulfate Proteoglycan (Large) / Perlecan Antibody - With BSA and Azide - References

Folkvord et. al., J Histochem Cytochem, 1989; 37:105-113. | Couchman et. al., Matrix, 1989; 9:311-321. | Horiguchi et. al., J Histochem Cytochem, 1989; 37:961-970. | Ljubimov et. al., Int J Cancer, 1992; 50:562-566. | Guelstein et. al., Int J Cancer, 1993; 53:269-277. | Ljubimov et. al., Lab Invest, 1995; 72:461-473. |