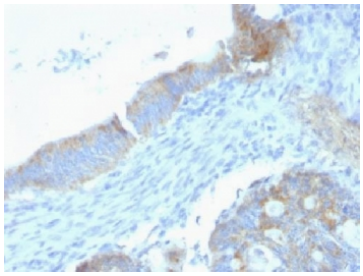
Perlecan Antibody SPM255 / Basement Membrane Proteoglycan Antibody [clone SPM255] (V2601)

Catalog No.	Formulation	Size
V2601-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2601-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2601SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2601IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

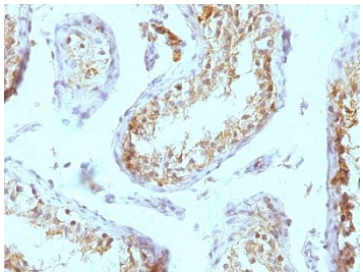
Citations (3)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG2a, kappa
Clone Name	SPM255
Purity	Protein G affinity chromatography
UniProt	P98160
Localization	Basement membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Perlecan Antibody SPM255 / Basement Membrane Proteoglycan Antibody is available for research use only.



Perlecan Antibody SPM255 / Basement Membrane Proteoglycan Antibody in Human Placenta IHC. Immunohistochemistry staining of FFPE human placenta tissue with Perlecan Antibody clone SPM255 shows prominent extracellular and basement membrane-associated staining surrounding placental structures, consistent with the distribution of HSPG2/perlecan within specialized extracellular matrices. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min.



Perlecan Antibody SPM255 in Human Kidney IHC. Immunohistochemistry staining of FFPE human kidney tissue with Perlecan Antibody clone SPM255 shows strong basement membrane-associated staining outlining renal structures, consistent with the extracellular matrix localization of perlecan/HSPG2. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min.

Description

Perlecan Antibody SPM255 / Basement Membrane Proteoglycan Antibody recognizes perlecan, a large extracellular matrix proteoglycan encoded by the HSPG2 gene. Perlecan is an important component of basement membranes, specialized extracellular matrices that provide structural support and help regulate interactions between cells and their surrounding environment. Its large multidomain core protein can carry heparan sulfate and other glycosaminoglycan chains that contribute to interactions with extracellular proteins, growth factors, and cell-surface receptors.

Basement membranes form specialized interfaces beneath epithelial and endothelial cells and around several other cell types. Within these structures, perlecan interacts with matrix components and contributes to tissue organization, mechanical stability, filtration properties, and cell-matrix communication. The ability of HSPG2 to bind multiple extracellular molecules gives perlecan both structural and regulatory functions within the extracellular matrix.

Perlecan can bind and regulate the availability of growth factors, including members of the fibroblast growth factor family. Its heparan sulfate chains can influence the localization, stability, and presentation of signaling molecules to their receptors. Through these interactions, HSPG2 contributes to processes involving cell proliferation, differentiation, tissue development, repair, and extracellular signaling.

Perlecan also has important functions in vascular basement membranes and angiogenesis. Changes in HSPG2 expression, distribution, or proteolytic processing have been investigated in vascular development, tissue remodeling, tumor growth, invasion, and metastatic progression. Its position within the extracellular matrix allows perlecan to influence both the physical tumor microenvironment and signaling pathways that regulate cellular behavior.

The HSPG2 core protein contains multiple functional domains, and proteolytic processing can generate fragments with biological properties distinct from those of intact perlecan. The C-terminal fragment endorepellin, for example, has been studied in relation to endothelial signaling and angiogenesis. These diverse functions make perlecan relevant to research involving basement membrane biology, extracellular matrix organization, vascular biology, and cancer.

NSJ Bioreagents offers clone SPM255 as a monoclonal reagent for investigating perlecan biology. A Perlecan Antibody can support research into HSPG2 expression, extracellular matrix organization, cell-matrix interactions, and the biological functions of Basement Membrane Proteoglycan.

For a highly published monoclonal option, see our Perlecan Antibody A7L6 / HSPG2 Antibody page.

Application Notes

Optimal dilution of the Perlecan Antibody SPM255 / Basement Membrane Proteoglycan Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A murine EHS laminin preparation was used as the immunogen for the Perlecan Antibody SPM255.

Storage

Store the Perlecan Antibody SPM255 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Perlecan antibody, HSPG2 antibody, Basement membrane proteoglycan antibody, Heparan sulfate proteoglycan 2 antibody, Basement membrane-specific heparan sulfate proteoglycan core protein antibody, PLC antibody

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