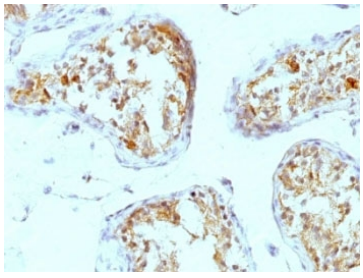
Perlecan Antibody A7L6 / HSPG2 Antibody [clone A7L6] (V2600)

Catalog No.	Formulation	Size
V2600-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2600-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2600SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2600IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

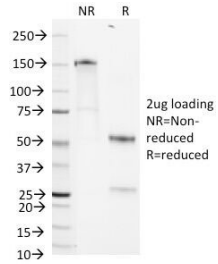
Citations (10)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG2a, kappa
Clone Name	A7L6
Purity	Protein G affinity chromatography
UniProt	P98160
Localization	Basement membrane
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Perlecan Antibody A7L6 / HSPG2 Antibody is available for research use only.



Perlecan Antibody A7L6 / HSPG2 Antibody in Human Testicular Carcinoma IHC. Immunohistochemistry staining of FFPE human testicular carcinoma tissue with Perlecan Antibody clone A7L6 shows prominent extracellular and basement membrane-associated staining surrounding tumor-cell groups, consistent with the localization of perlecan/HSPG2 within basement membranes and extracellular matrix. 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.



Purified Perlecan Antibody A7L6 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Perlecan Antibody clone A7L6 under non-reduced (NR) and reduced (R) conditions demonstrates the integrity of the rat monoclonal antibody preparation. The non-reduced antibody migrates predominantly near 150 kDa, while reduction produces the expected immunoglobulin heavy-chain band near 50 kDa and light-chain band near 25 kDa.

Description

Perlecan Antibody A7L6 / HSPG2 Antibody recognizes perlecan, a large multidomain extracellular matrix proteoglycan encoded by the HSPG2 gene. Perlecan is a major component of basement membranes and is characterized by a large core protein that can carry heparan sulfate and other glycosaminoglycan chains. Through interactions with extracellular matrix proteins, growth factors, cell-surface receptors, and signaling molecules, perlecan contributes to the structural and functional organization of the extracellular environment.

HSPG2 is particularly abundant in basement membranes, specialized extracellular matrices that provide structural support and help regulate interactions between cells and their surrounding environment. Perlecan contributes to basement membrane integrity, filtration properties, cell adhesion, and tissue organization. Its modular structure allows it to interact with numerous extracellular proteins and signaling factors, giving HSPG2 functions that extend beyond a purely structural role.

A major biological property of perlecan is its ability to bind and regulate growth factors. Its glycosaminoglycan chains can sequester signaling molecules and influence their stability, localization, and availability to cell-surface receptors. Perlecan has been particularly associated with fibroblast growth factor signaling and can function as a co-receptor that facilitates interactions between growth factors and their receptors. Through these mechanisms, HSPG2 participates in cellular proliferation, differentiation, tissue development, and repair.

Perlecan also has important roles in vascular biology and angiogenesis. Its presence within vascular basement membranes and ability to modulate growth-factor signaling connect HSPG2 with endothelial-cell behavior and blood vessel formation. Altered perlecan expression and remodeling of the surrounding extracellular matrix have consequently been investigated in tumor growth, invasion, angiogenesis, and metastatic progression.

HSPG2 is a very large protein with multiple functional domains capable of interacting with different extracellular matrix components. Proteolytic processing can also generate biologically active fragments, including the C-terminal fragment endorepellin, which has been studied for functions distinct from those of intact perlecan. These properties make HSPG2 relevant to research spanning extracellular matrix biology, vascular development, tissue architecture, and cancer.

NSJ Bioreagents offers clone A7L6 as a monoclonal reagent for investigating perlecan and basement membrane biology. A Perlecan Antibody can support research into HSPG2 expression, extracellular matrix organization, growth-factor regulation, angiogenesis, and the biological functions of heparan sulfate proteoglycan 2.

Explore our Cancer Marker Antibodies page for additional reagents targeting proteins associated with tumor growth, angiogenesis, extracellular matrix remodeling, and cancer progression.

Application Notes

Optimal dilution of the Perlecan Antibody A7L6 / HSPG2 Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, 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.

Storage

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

Alternate Names

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

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