

Perlecan Monoclonal Antibody (A7L6)

Catalog NumberMA1-06821

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Bovine, Fish, Human, Mouse, Rat
Host/Isotope	Rat / IgG2a	Published species	Bovine, Mouse, Human, Not Applicable
Class	Monoclonal	Tested Applications	
Type	Antibody	Dilution *	
Clone	A7L6	Immunohistochemistry (Frozen) (IHC (F))	1:25-1:200
Immunogen	High molecular mass material derived from the Engelbreth-Holm-Swarm (EHS) tumor matrix containing laminin, entactin and HSPG.	Immunohistochemistry (Paraffin) (IHC (P))	1:25-1:200
		Immunoprecipitation (IP)	Assay-dependent
Conjugate	Unconjugated	Western Blot (WB)	1:100-1:1,000
Form	Liquid	Immunocytochemistry (ICC/IF)	1:25-1:200
Concentration	1 mg/mL	Published Applications	
Purification	purified	Immunohistochemistry (IHC)	See 8 publications below
Storage buffer	PBS	Immunohistochemistry (Paraffin) (IHC (P))	See 1 publications below
Contains	0.09% sodium azide	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

MA1-06821 detects large heparan sulphate proteoglycan in human, mouse, bovine, cod, wolffish, and rat samples. MA1-06821 has sucessfully been used in Western blotting, immunocytochemistry, immunoprecipitation, and immunohistochemistry procedures. By Western blot it detects a >400 kDa band representing large HSPG. The MA1-06821 immunogen is a high molecular mass material derived from the Engelbreth-Holm-Swarm (EHS) tumor matrix containing laminin, entactin and HSPG.

Background/Target Information

Perlecan is a major heparan-sulfate proteoglycan (HSPG) found within all basement membranes and cell surfaces. Because of its strategic location and ability to store and protect growth factors, perlecan 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 coreceptor 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.

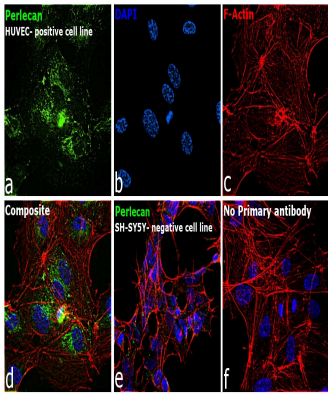
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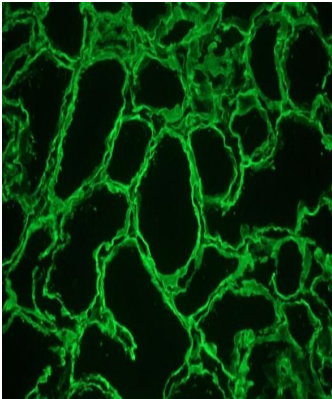
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Product Images For Perlecan Monoclonal Antibody (A7L6)



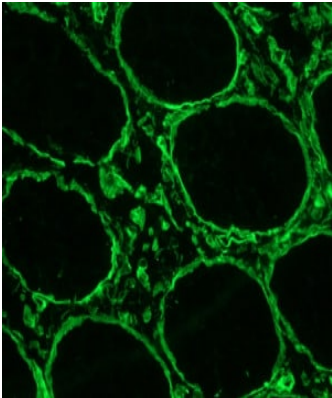
Perlecan Antibody (MA1-06821) in ICC/IF

Immunofluorescence analysis of HSPG2 was performed using 70% confluent log phase HUVEC and SH-SY5Y cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with Perlecan Monoclonal Antibody (A7L6) (Product # MA1-06821, 1:100) in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 488 (Product # A48269, 1:2,000), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing golgi-like localization. Panel e represents SH-SY5Y cells with lower HSPG2 expression. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



Perlecan Antibody (MA1-06821) in IHC (F)

Immunohistochemistry on frozen section of human kidney showing strong reactivity in the extracellular matrix and basement membrane. Stained with Large Heparan Sulphate Proteoglycan monoclonal antibody (Product # MA1-06821).



Perlecan Antibody (MA1-06821) in IHC (F)

Immunohistochemistry analysis of Perlecan in frozen sections of human colon using a Perlecan Monoclonal Antibody (A7L6) (Product # MA1-06821), showing strong reactivity in the extracellular matrix and basement membrane.

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PubMed References For Perlecan Monoclonal Antibody (A7L6)

8 Immunohistochemistry References

Species / Dilution	Summary
	MA106821 was used in immunohistochemistry to reveal that platelet-derived growth factor alpha and beta are coexpressed in the craniofacial mesenchyme of mid-gestation mouse embryos
Mouse / 1:100	Genes & development ( 2016; 30: 2443) <b>"PDGFR regulates craniofacial development through homodimers and functional heterodimers with PDGFR."</b> Author(s):Fantauzzo KA,Soriano P PubMed Article URL: <a href="http://dx.doi.org/10.1101/gad.288746.116">http://dx.doi.org/10.1101/gad.288746.116</a>
	MA1-06821 was used in immunohistochemistry to study the role of DOT1L in regulating dystrophin expression and cardiac function
Mouse / Not Cited	Genes & development ( 2011; 25: 263) <b>"DOT1L regulates dystrophin expression and is critical for cardiac function."</b> Author(s):Nguyen AT,Xiao B,Neppl RL,Kallin EM,Li J,Chen T,Wang DZ,Xiao X,Zhang Y PubMed Article URL: <a href="http://dx.doi.org/10.1101/gad.2018511">http://dx.doi.org/10.1101/gad.2018511</a>
	MA1-06821 was used in immunohistochemistry to evaluate the usefulness of bovine endosteum-derived particles in stem cell culture
Bovine / Not Cited	Biomaterials ( 2010; 31: 5689) <b>"The effect of bovine endosteum-derived particles on the proliferation of human mesenchymal stem cells."</b> Author(s):Nigro J,White JF,Ramshaw JA,Haylock DN,Nilsson SK,Werkmeister JA PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.biomaterials.2010.03.054">http://dx.doi.org/10.1016/j.biomaterials.2010.03.054</a>
	MA1-06821 was used in Immunohistochemistry to provide evidence that primary cilia orchestrate postnatal AC morphogenesis including tidemark topography, zonal matrix composition, and ambulation load responses.
Mouse / 1:50	Journal of bone and mineral research : the official journal of the American Society for Bone and Mineral Research ( 2022; 37: 1097) <b>"Primary Cilia Direct Murine Articular Cartilage Tidemark Patterning Through Hedgehog Signaling and Ambulatory Load."</b> Author(s):Rux D,Helbig K,Han B,Cortese C,Koyama E,Han L,Pacifici M PubMed Article URL: <a href="http://dx.doi.org/10.1002/jbmr.4506">http://dx.doi.org/10.1002/jbmr.4506</a>
	MA1-06821 was used in immunohistochemistry to study the role of dystroglycan LARGE glycans in the normal functioning of skeletal muscle
Human / Not Cited	Nature ( 2013; 503: 136) <b>"LARGE glycans on dystroglycan function as a tunable matrix scaffold to prevent dystrophy."</b> Author(s):Goddeeris MM,Wu B,Venzke D,Yoshida-Moriguchi T,Saito F,Matsumura K,Moore SA,Campbell KP PubMed Article URL: <a href="http://dx.doi.org/10.1038/nature12605">http://dx.doi.org/10.1038/nature12605</a>
	MA1-06821 was used in Immunohistochemistry to highlight a crucial role of Prickle1-mediated polarized basement membrane secretion and deposition in PTD elongation.
Mouse / 1:500	Development (Cambridge, England) ( 2020; 147: ) <b>"Ontogenesis of the tear drainage system requires Prickle1-driven polarized basement membrane deposition."</b> Author(s):Guo D,Ru J,Mao F,Ouyang H,Ju R,Wu K,Liu Y,Liu C PubMed Article URL: <a href="http://dx.doi.org/10.1242/dev.191726">http://dx.doi.org/10.1242/dev.191726</a>
	MA1-06821 was used in immunohistochemistry to study the accelerated age-related hepatic changes observed in a murine model of Werner syndrome
Mouse / 1:200	The journals of gerontology. Series A, Biological sciences and medical sciences ( 2014; 69: 1076) <b>"Liver aging and pseudocapillarization in a Werner syndrome mouse model."</b> Author(s):Cogger VC,Svistounov D,Warren A,Zykova S,Melvin RG,Solon-Biet SM,O'Reilly JN,McMahon AC,Ballard JW,De Cabo R,Le Couteur DG,Lebel M PubMed Article URL: <a href="http://dx.doi.org/10.1093/gerona/glt169">http://dx.doi.org/10.1093/gerona/glt169</a>
	MA1-06821 was used in immunohistochemistry to study the synthesis of syndecan-1 by skeletal muscle cells in response to Trichinella spiralis infection
Mouse / Not Cited	Infection and immunity ( 2006; 74: 1941) <b>"Synthesis of syndecan-1 by skeletal muscle cells is an early response to infection with Trichinella spiralis but is not essential for nurse cell development."</b> Author(s):Beiting DP,Park PW,Appleton JA PubMed Article URL: <a href="http://dx.doi.org/10.1128/IAI.74.3.1941-1943.2006">http://dx.doi.org/10.1128/IAI.74.3.1941-1943.2006</a>

1 Immunohistochemistry (Paraffin) References

Species / Dilution	Summary
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MA106821 was used in immunohistochemistry - paraffin section to show that a defined cosmetic composition results in the production of sulfated glycosaminoglycans and may have anti-ageing benefits

Clinical, cosmetic and investigational dermatology ( 2020; 9: 461)

**"Reactivating the extracellular matrix synthesis of sulfated glycosaminoglycans and proteoglycans to improve the human skin aspect and its mechanical properties."**

Author(s):Chajra H,Auriol D,Joly F,Pagnon A,Rodrigues M,Allart S,Redziniak G,Lefevre F

PubMed Article URL:<http://dx.doi.org/10.2147/CCID.S116548>

Human / 1:100

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