

For Research Use Only

Collagen Type XVIII Polyclonal antibody

Catalog Number: 18301-1-AP

5 Publications



Basic Information

Catalog Number: 18301-1-AP	GenBank Accession Number: BC063833	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 240 ug/ml by Nanodrop and 187 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 80781	Recommended Dilutions: WB 1:200-1:1000 IHC 1:20-1:200 IF 1:50-1:500
Source: Rabbit	UNIPROT ID: P39060	
Isotype: IgG	Full Name: collagen, type XVIII, alpha 1	
	Calculated MW: 178 kDa	
	Observed MW: 20 kDa	

Applications

Tested Applications: WB, IHC, IF, ELISA	Positive Controls: WB : human kidney tissue, IHC : human liver tissue, IF : zebrafish retina,
Cited Applications: WB, IF	
Species Specificity: human, zebrafish	
Cited Species: human, rat	
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

Background Information

COL18A1 is a naturally-occurring 20-kDa C-terminal fragment derived from collagen alpha-1(XVIII) chain. It is reported to serve as an anti-angiogenic agent, similar to angiostatin and thrombospondin. It potently inhibits endothelial cell proliferation and inhibits endothelial cell angiogenesis by binding to the heparan sulfate proteoglycans involved in growth factor signaling. COL18A1 is a broad spectrum angiogenesis inhibitor and may interfere with the pro-angiogenic action of growth factors such as basic fibroblast growth factor (bFGF/FGF-2) and vascular endothelial growth factor (VEGF). This antibody raised against 1693-1706 aa of human collagen alpha-1(XVIII) chain can recognize endostatin (20 kDa) and several endostatin-related fragments of higher molecular weight (PMID: 15545970; 19358707).

Notable Publications

Author	Pubmed ID	Journal	Application
Pei Zhang	31914639	FASEB J	WB
Emna Ouni	35341935	Matrix Biol	IF
Baolong Wang	26830094	Biotechnol Lett	WB

Storage

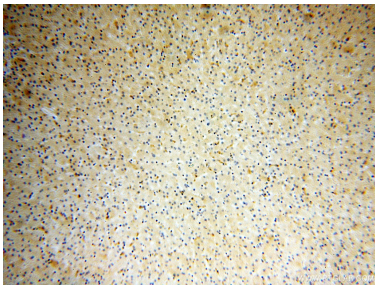
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

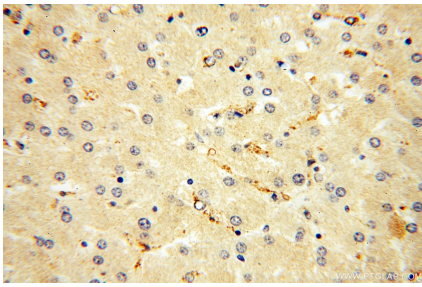
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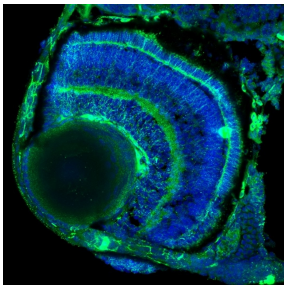
Selected Validation Data



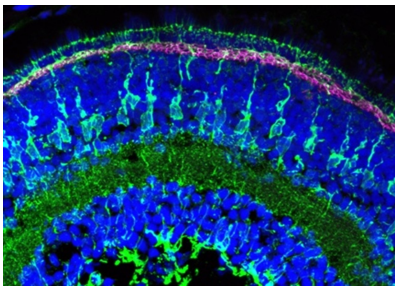
Immunohistochemical analysis of paraffin-embedded human liver using 18301-1-AP (Endostatin antibody) at dilution of 1:50 (under 10x lens).



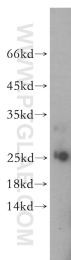
Immunohistochemical analysis of paraffin-embedded human liver using 18301-1-AP (Endostatin antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescence analysis of Collagen18a1 (aka Endostatin) polyclonal antibody (18301-1-AP, green) staining on tissue sections of the zebrafish retina at 3 days post fertilisation. Dilution 1:200. Tissue fixed overnight in 4% PFA. DAPI, blue. Data generated by Natalia Jaroszynska in Professor Ryan MacDonald's lab, University College London, UK.



Immunofluorescence analysis of the zebrafish retina at 5 days post fertilisation. Collagen18a1 (aka Endostatin) polyclonal antibody (18301-1-AP, magenta). Dilution 1:200. Glutamine synthetase (66323-1-Ig, green) dilution 1:500. Tissue fixed overnight in 4% PFA; DAPI, blue. Data generated by Natalia Jaroszynska in Professor Ryan MacDonald's lab, University College London, UK.



human kidney tissue were subjected to SDS PAGE followed by western blot with 18301-1-AP (Endostatin antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.