

For Research Use Only

COL4A1 Polyclonal antibody

Catalog Number: 30850-1-AP

1 Publications



Basic Information

Catalog Number: 30850-1-AP	GenBank Accession Number: BC151220	Purification Method: Antigen affinity Purification
Size: 150ul , Concentration: 700 ug/ml by Nanodrop;	GeneID (NCBI): 1282	Recommended Dilutions: WB 1:500-1:1000 IHC 1:50-1:500
Source: Rabbit	UNIPROT ID: P02462	
Isotype: IgG	Full Name: collagen, type IV, alpha 1	
Immunogen Catalog Number: AG34391	Calculated MW: 1669 aa, 161 kDa	
	Observed MW: 160-220 kDa	

Applications

Tested Applications: WB, IHC, ELISA	Positive Controls:
Cited Applications: IHC	WB : HeLa cells, SK-N-SH cells
Species Specificity: human	IHC : human lung cancer tissue, human placenta tissue
Cited Species: mouse	
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

COL4A1 (Collagen Type IV Alpha 1 Chain) encodes a major component of type IV collagen, which is an essential structural element of basement membranes in various tissues. COL4A1 forms heterotrimers with other collagen type IV chains (e.g., COL4A2) and interacts with extracellular matrix components such as laminins, proteoglycans, and perlecan. Proteolytic cleavage of the non-collagenous domain of COL4A1 produces a fragment called arresten, which has anti-angiogenic and tumor suppressor properties. Elevated expression of COL4A1 has been observed in various cancers, including hepatocellular carcinoma (HCC), where it promotes tumor growth and metastasis through the FAK-Src signaling pathway. COL4A1 is highly expressed in various tissues, including the placenta, fat, and other organs. The expression of COL4A1 can be regulated by transcription factors such as RUNX1, which has been shown to upregulate COL4A1 in hepatocellular carcinoma. The molecular weight of COL4A1 is 160 kDa, and it also has glycosylation modification.

Notable Publications

Author	Pubmed ID	Journal	Application
Kaiyue Tan	39905060	Sci Rep	IHC

Storage

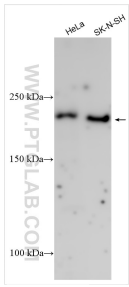
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

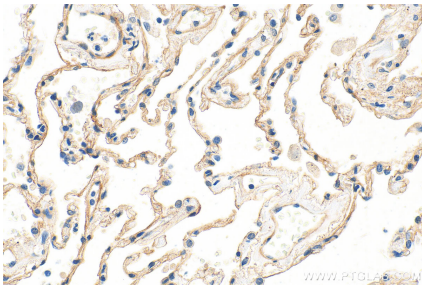
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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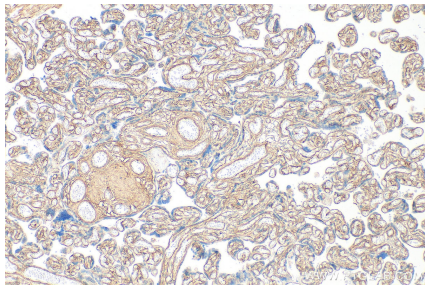
Selected Validation Data



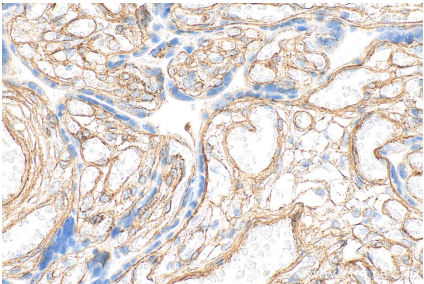
Various lysates were subjected to SDS PAGE followed by western blot with 30850-1-AP (COL4A1 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



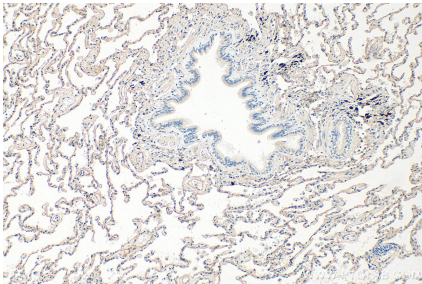
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 30850-1-AP (Collagen Type IV antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 30850-1-AP (Collagen Type IV antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 30850-1-AP (Collagen Type IV antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 30850-1-AP (Collagen Type IV antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).