

For Research Use Only

COL4A1 Recombinant monoclonal antibody, PBS Only

Catalog Number: 85256-4-PBS



Basic Information

Catalog Number: 85256-4-PBS	GenBank Accession Number: BC151220	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 1282	CloneNo.: 251500E12
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: 220 kDa	

Applications

Tested Applications:
WB, IHC, Indirect ELISA

Species Specificity:
human

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.

Storage

Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

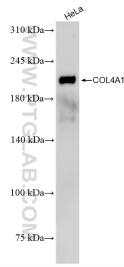
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

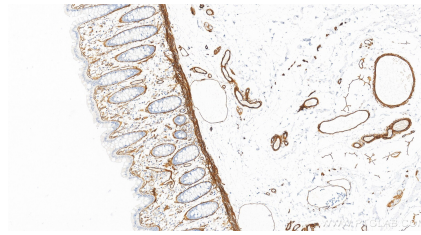
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

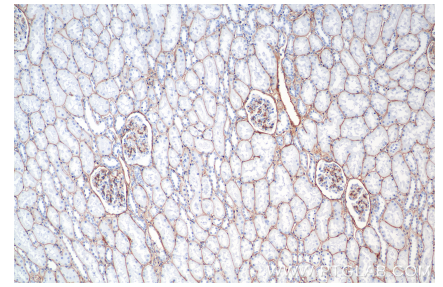
Selected Validation Data



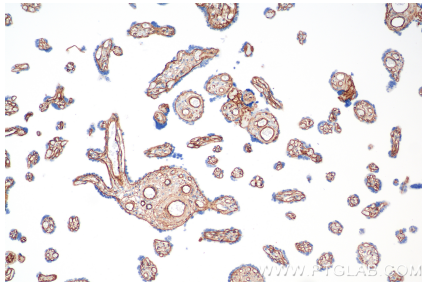
HeLa cells were subjected to SDS PAGE followed by western blot with 85256-4-RR (COL4A1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 85256-4-PBS in a different storage buffer formulation.



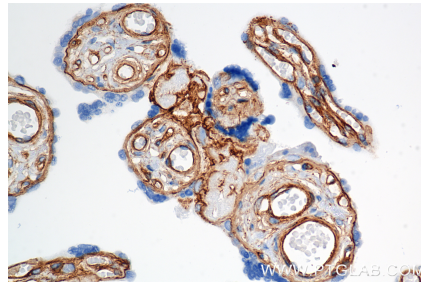
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 85256-4-RR (COL4A1 antibody) at dilution of 1:1500 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85256-4-PBS in a different storage buffer formulation.



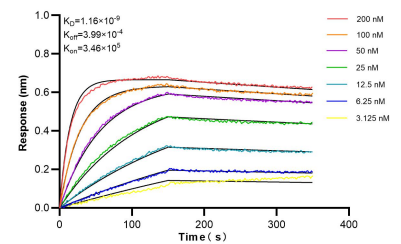
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 85256-4-RR (COL4A1 antibody) at dilution of 1:1500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85256-4-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 85256-4-RR (COL4A1 antibody) at dilution of 1:1500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85256-4-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 85256-4-RR (COL4A1 antibody) at dilution of 1:1500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85256-4-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 85256-4-RR against Human COL4A1 were performed. The affinity constant is 1.16 nM.