

Basic Information

Product Name	Anti-COL4A1 Antibody	
Gene Name	COL4A1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, IF	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human Collagen IV recombinant protein (Position: G1445-T1669). Human Collagen IV shares 97% amino acid (aa) sequence identity with mouse Collagen IV.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	220KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

COL4A1, also known as ICH or Collagen alpha-1(IV), is a protein that in humans is encoded by the COL4A1 gene. It is mapped to 13q34. This gene encodes the major type IV alpha collagen chain of basement membranes. Like the other members of the type IV collagen gene family, this gene is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter. COL4A1 binds to alpha-1/beta-1 integrin and inhibits migration, proliferation, and tube formation by endothelial cells. It is also a potential therapeutic candidate for targeting tumor angiogenesis.

Reference

Anti-COL4A1 Antibody 被引用在2文献中。

Selected Validation Data

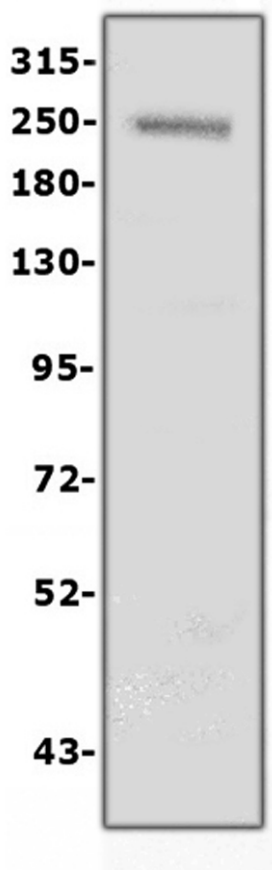


Figure 1. Western blot analysis of Collagen IV using anti-Collagen IV antibody (PB9099).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Collagen IV antigen affinity purified polyclonal antibody (Catalog # PB9099) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Collagen IV at approximately 250KD. The expected band size for Collagen IV is at 161KD.

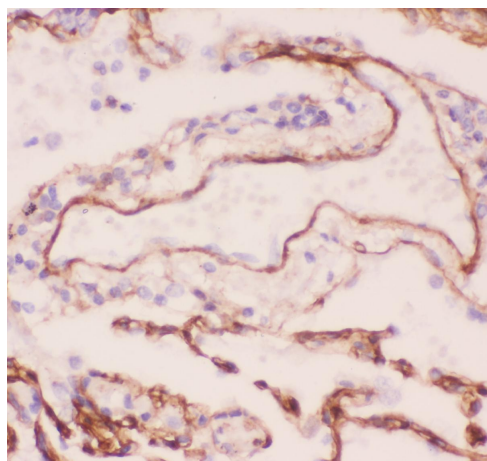


Figure 2. IHC analysis of Collagen IV using anti-Collagen IV antibody (PB9099).Collagen IV was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Collagen IV Antibody (PB9099) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

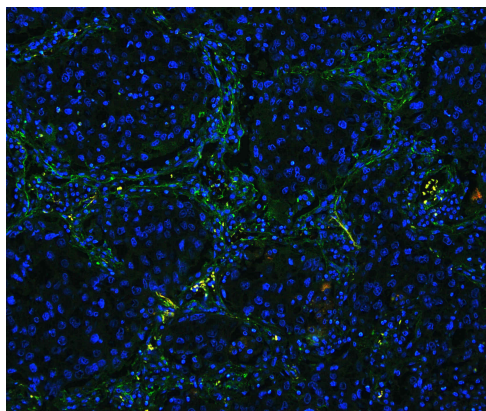


Figure 3. IF analysis of COL4A1 using anti- COL4A1 antibody (PB9099)

COL4A1 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/mL rabbit anti- COL4A1 Antibody (PB9099) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.