

Product datasheet for **R1041B**

Collagen IV (COL4A1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, IP, WB
Recommended Dilution:	Suitable for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, for immunoprecipitation and for western blotting for highly sensitive qualitative analysis. Also Suitable for Immunohistochemistry. Recommended Dilutions: ELISA: 1/20,000-1/100,000. Western blot: 1/2,000-1/10,000. Immunoprecipitation: 1/100. Immunohistochemistry: 1/1,000-1/5,000. QC: This product was assayed by western blot and found to be reactive against Collagen IV at a dilution of 1/2,000 to 1/10,000. This product was also assayed against 1.0 ug of Collagen IV in a standard sandwich ELISA using Peroxidase Conjugated Streptavidin and ABTS (2,2'-azino-bis-[3-ethylbenthiiazoline-6-sulfonic acid]) as a substrate for 30 minutes at room temperature. A working dilution of 1/4,000 to 1/8,000 of the stock concentration is suggested for this product. Immunohistochemistry on frozen tissue sections dilute the product 1/1000 to 1/5000.
Reactivity:	Bovine, Human, Mammalian
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Collagen Type IV from Human and Bovine placenta.



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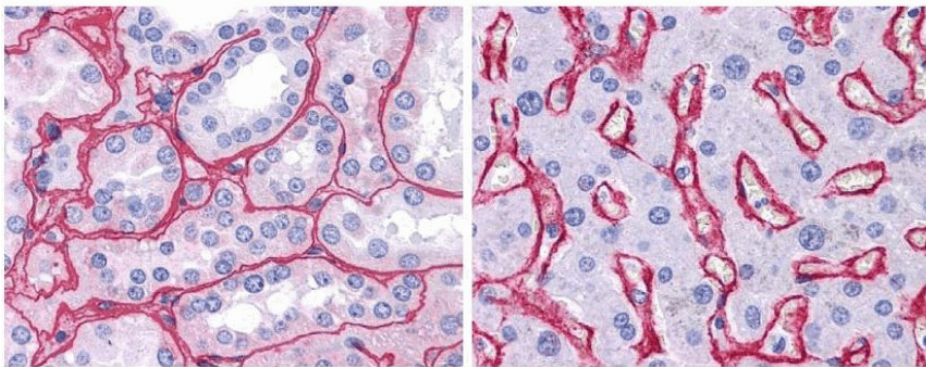
Specificity:	<p>This product has been prepared by Immunoaffinity Chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. Typically less than 1% cross reactivity against other types of collagens was detected by ELISA against purified standards. Some class specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues.</p> <p>This antibody reacts with most mammalian Type IV collagens and has negligible cross-reactivity with Type I, II, III, V and VI collagens. Non-specific cross-reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.</p>
Formulation:	<p>0.125M Sodium Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0 Label: Biotin State: Lyophilized (sterile filtered) purified Ig fraction Stabilizer: 10 mg/ml BSA (Ig and Protease Free) Preservative: 0.01% (w/v) Sodium Azide Label: Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) Molar ratio: 10-20 BAC molecules per Rabbit IgG molecule</p>
Reconstitution Method:	Restore with 100 µl deionized water (or equivalent)
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Biotin
Storage:	<p>Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.</p>
Stability:	Shelf life: one year from despatch.
Gene Name:	collagen type IV alpha 1 chain
Database Link:	Entrez Gene 1282 Human P02462

Background:

Collagens are highly conserved throughout evolution and are characterized by an uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. For these reasons it is often extremely difficult to generate antibodies with specificities to collagens. The development of type specific antibodies is dependent on NON-DENATURED three-dimensional epitopes. Collagens were extensively purified for immunization from human and bovine placenta and cartilage by limited pepsin digestion and selective salt precipitation. This preparation results in a native conformation of the protein. Antibodies are isolated from rabbit antiserum and are extensively cross-adsorbed by immunoaffinity purification to produce 'type' specific antibodies. Greatly diminished reactivity and selectivity of these antibodies will result if denaturing and reducing conditions of SDS-PAGE and immunoblotting are used.

Synonyms:

COL4A1

Product images:

Biotin conjugated Collagen IV antibody (1/400, 45 min RT) showed strong staining in FFPE sections of Human kidney (Left) with strong Red staining observed in glomeruli and liver (Right) with strong staining in sinusoids. Fixation: formalin fixed paraffin embedded. Antigen retrieval: steamed in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes. Primary antibody: Collagen IV antibody at 10 ug/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Collagen IV is extracellular. Staining: Collagen IV as precipitated red signal with hematoxylin purple nuclear counterstain.