

Product datasheet for R1041

Collagen IV (COL4A1) Rabbit Polyclonal Antibody

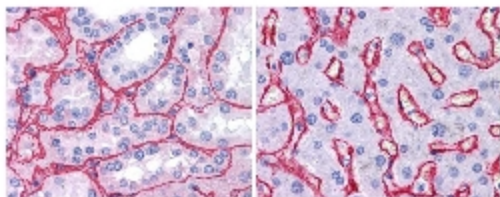
Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, IP, WB
Recommended Dilution:	Anti-Collagen antibodies have been used for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, for Immunoprecipitation and for native (non-denaturing, non-dissociating) PAGE and Western blotting for highly sensitive qualitative analysis. <i>Recommended Dilutions:</i> ELISA: 1/5,000-1/50,000. Western blot: 1/1,000-1/10,000. Immunoprecipitation: 1/100. Immunohistochemistry: 1/50-1/200. QC: This product was assayed by Immunoblot and found to be reactive against Collagen IV at a dilution of 1/5,000-1/10,000. This product was also assayed against 1.0 µg of Collagen IV in a standard sandwich ELISA using Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) (Cat.-No R1364HRP) and (ABTS (2,2'-azino-bis-[3-ethylbenthiiazoline-6-sulfonic acid]) as a substrate for 30 minutes at room temperature. A working dilution of 1/4,000-1/8,000 of the stock concentration showed best results.
Reactivity:	Bovine, Human, Mammalian
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Collagen type IV purified 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.</p> <p>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. This antibody reacts with most mammalian Type IV collagens and has negligible cross-reactivity with Type I, II, III, V or 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>0.02M Sodium Phosphate, 0.15M Sodium Chloride, pH 7.2 State: Aff - Purified State: Liquid (sterile filtered) purified Ig fraction Stabilizer: None Preservative: 0.01% (w/v) Sodium Azide</p>
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	<p>Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. For extended storage, mix with an equal volume of glycerol. 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:	<p>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.</p>
Synonyms:	COL4A1

Product images:

R1041 Collagen IV antibody (Lot 25440, 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. Staining for both tissues was consistent with a basement membrane distribution. Slides were steamed in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes for antigen retrieval. Images provided courtesy of LifeSpan Biosciences, Seattle, WA