

## Polyclonal Antibody to Collagen type II alpha 1 chain - Biotin

<b>Alternate names:</b>	Alpha-1 type II collagen, COL2A1
<b>Catalog No.:</b>	R1039B
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml (by UV absorbance at 280 nm)
<b>Background:</b>	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. 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.
<b>Uniprot ID:</b>	<a href="#">P02458</a>
<b>NCBI:</b>	<a href="#">NP_001835.3</a>
<b>GeneID:</b>	<a href="#">1280</a>
<b>Host:</b>	Rabbit
<b>Immunogen:</b>	Collagen type II purified from adult Human knee and Bovine nasal cartilage. For immunization collagens extensively purified by limited pepsin digestion and selective salt precipitation were used. This preparation results in a native conformation of the protein.
<b>Format:</b>	<b>State:</b> Liquid (sterile filtered) IgG fraction <b>Purification:</b> Immunoaffinity Chromatography using immobilised antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. <b>Buffer System:</b> 0.1M Sodium Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0 <b>Preservatives:</b> 0.01% Sodium Azide <b>Stabilizers:</b> 10 mg/ml BSA (IgG and Protease free) <b>Label:</b> Biotin – Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) <i>Molar Ratio:</i> 10-20 BAC molecules per Rabbit IgG molecule
<b>Applications:</b>	Anti-Collagen antibodies have been used 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. <b>Recommended Dilutions:</b> <b>ELISA:</b> 1/10,000-1/50,000.

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**Western blot:** 1/5,000-1/10,000.

**Immunoprecipitation:** 1/100.

**Immunohistochemistry:** 1/200-1/1,000.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

Crossreactivity < 1% to other 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. This antibody reacts with most mammalian Type II collagens and has negligible cross-reactivity with Type I, III, IV, 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.

**Species Reactivity:** **Tested:** Human, Mouse, Rat, Bovine, Sheep.

**Storage:**

This product is stable for one month at 2-8°C as an undiluted liquid.

For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.

Dilute only prior to immediate use.

Shelf life: one year from despatch

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