

### **Product datasheet for R1039B**

### OriGene Technologies, Inc.

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# Collagen II (COL2A1) 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 Western blotting

for highly sensitive qualitative analysis.

Recommended Dilutions: ELISA: 1/10,000-1/50,000. Western blot: 1/5,000-1/10,000. Immunoprecipitation: 1/100.

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

**Reactivity:** Bovine, Human, Mouse, Rat, Sheep

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**Immunogen:** 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.

**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.

Formulation: 0.1M Sodium Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0

Label: Biotin

State: Lyophilized purified IgG fraction

Stabilizer: 10 mg/ml BSA (IgG and Protease free)

Preservative: 0.01% (w/v) Sodium Azide

Label: Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) Molar radio: 10-20 BAC molecules per Rabbit IgG molecule



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**Reconstitution Method:** Restore with 0.1 ml deionized water (or equivalent)

**Concentration:** lot specific

Purification: Immunoaffinity Chromatography using immobilised antigens followed by extensive cross-

adsorbtion against other collagens, human serum proteins and non-collagen extracellular

matrix proteins to remove any unwanted specificities.

Conjugation: Biotin

**Storage:** 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.

**Stability:** Shelf life: one year from despatch.

Gene Name: collagen type II alpha 1 chain

Database Link: Entrez Gene 1280 Human

P02458

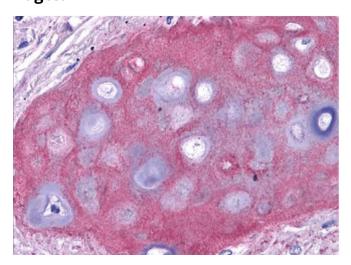
**Background:** Collagens are highly conserved throughout evolution and are characterized by an

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. 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.

COL2A1, Alpha-1 type II collagen

## **Product images:**

Synonyms:



Immunohistochemistry of Rabbit Anti-Collagen II Biotin Conjugated Antibody: Tissue: human bronchiolar cartilage (shown). Though not shown, faint to moderate staining of tonsillar squamous epithelium, prostatic stroma, breast, colon, placenta, and dermal connective tissues was also observed.