

RA004**Bovine Collagen type II alpha 1 chain****Alternate names:**

Alpha-1 type II collagen, COL2A1

Quantity:

0.5 mg

Concentration:

1.0 mg/ml (by dry weight)

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. This may result in diminished reactivity of some antibodies with denatured collagen or formalin fixed, paraffin embedded tissues.

Type II collagen is a fibrillar collagen found in cartilage and the vitreous humor of the eye. Collagen type II is essential for the normal embryonic development of the skeleton, for linear growth and for the ability of cartilage to resist compressive forces. Mutations in this gene are associated with achondrogenesis, chondrodysplasia, early onset familial osteoarthritis, SED congenita, Langer Saldino achondrogenesis, Kniest dysplasia, Stickler syndrome type I, and spondyloepimetaphyseal dysplasia Strudwick type. In addition, defects in processing chondrocalcin, a calcium binding protein that is the C propeptide of this collagen molecule, are also associated with chondrodysplasia. There are two transcripts identified for this gene.

Uniprot ID:[P02459](#)**NCBI:**[NP_001001135.2](#)**GeneID:**[407142](#)**Species:**

Bovine

Source:

Cartilage

Format:**State:** Liquid (sterile filtered) purified Ig fraction.**Purity:** >98% Chromatographically and immunologically pure.**Buffer System:** 0.5 M Acetic Acid, pH 4.5 with 0.01% Sodium Azide as preservative.**Description:**

Prepared from bovine nasal cartilage and is free from other collagens, serum proteins and non-collagen extracellular matrix proteins. This product reacts with anti-Collage Type II. Reaction with anti-Collagen I, III, IV, V or VI is negligible (typically less than 1% cross reactivity was detected by ELISA).

Storage:

Store vial at 2-8°C prior to opening.

This product is stable 2-8°C as an undiluted liquid.

Dilute only prior to immediate use.

Shelf life: one year from despatch.