

**RABBIT ANTI-BOVINE COLLAGEN TYPE I  
POLYCLONAL ANTIBODY****CATALOG NUMBER:** AB749P**LOT NUMBER:****QUANTITY:** 100 µg**CONCENTRATION:** 1 mg/mL

**BACKGROUND:** Type I collagen is the most common of the collagens in vertebrates. It comprises up to 90% of the skeletons of the mammals, and it is also widespread all over the body. In addition to bones, it is found in skin, tendons, ligaments, cornea, intervertebral disks, dentine, arteries and granulation tissues among other locations. Even cartilage, which mainly contains type II collagen, contains of some type I collagen. It is also widespread in the animal kingdom, from invertebrates to vertebrates, and moreover it is restricted to animals; plants do not have true collagens. Type I collagen is also important in other respects. For example, it is a large component of gelatin (Jello™) and in many biomaterials, indeed, leather is mostly composed of type I collagen. The importance of type I collagen for medical research is that it is involved in many human and animal diseases, including fibrosis, osteoporosis, cancer, atherosclerosis etc. Because of its wide distribution throughout the body, the monitoring of the breakdown of type I collagen molecule is frequently used to monitor the physiological changes in tissues and can be used as a diagnostic tool in various pathological conditions.

**SPECIFICITY:** Reacts with bovine collagen type I collagen.  
Antibody shows less than 0.1% cross reactivity in RIA at 1:500 dilution with bovine collagen types II, IX & XI, or fibronectin; other collagens and ECM proteins untested.  
Reactivity with human collagen type I < 2.0% with RIA, 1:500; reactivity with chicken collagen type I, less than 0.1% by RIA at 1:500 dilution.

**IMMUNOGEN:** Purified bovine type I collagen extracted from purified bovine skin.

**APPLICATIONS:** Immunohistochemistry: 1:80 dilution for immunofluorescent staining of frozen bovine liver and skin tissues.  
Immunohistochemistry on formalin fixed, paraffin embedded tissues requires HIER antigen retrieval and enhanced enzymatic detection; methyl-carnoy, acetone, or acid-aldehyde fixation can enhance reactivity for paraffin sections.  
Radioimmunoassay  
ELISA: 1:400 direct  
Not recommended for Western blots.

Optimal working dilutions must be determined by end user

**SPECIES REACTIVITY:** Reacts with Bovine (Check SPECIFICITY field), reactivity with other species has not been determined.

**PRESENTATION:** Protein G purified IgG fraction in liquid at 1 mg/mL in 0.01M phosphate, 0.09M NaCl, pH 7.2.No preservatives.

**STORAGE/HANDLING:** Maintain frozen at -20°C for up to 12 months. Avoid repeated freeze/thaw cycles

**REFERENCES:** Daamen, WF et al. (2003). Preparation and evaluation of molecularly-defined collagen-elastin-glycosaminoglycan scaffolds for tissue engineering. *Biomaterials*

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24:4001-4009.

Tintut, Y et al. (1998). cAMP Stimulates Osteoblast-like Differentiation of Calcifying Vascular Cells . J Biol Chem 273(13):7547-7553.

**Important Note:** *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200  $\mu$ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

*For research use only; not for use as a diagnostic.*

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