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Collagen Type II Antibody

Rabbit Polyclonal Antibody to Collagen Type II

Catalog Number **R1039**

Specificity: 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. For immunization collagens from human and bovine placenta and cartilage extensively purified by limited pepsin digestion and selectivee salt precipitation were used. This preparation results in a native conformation of the protein. Antibodies are isolated from rabbit antiserum and are extensively cross-absorbed 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.
This product hasbeen prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-absorbtion against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. 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 diminshed 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.

Immunogen: Collagen type II purified from human knee and bovine nasal cartilage.

Host: Rabbit

Uses and Dilutions: Immunoblotting (1:5,000 - 1:10,000 non-denaturing, non-dissociating conditions), immunoassay (1:4,000 - 1:8,000 using ABTS as substrate in a sandwich ELISA against 1 ug Collagen II) and immunohistochemistry (dilution 1:50 - 1:200 as a guide for frozen sections). For paraffin embedded sections pretreatment with 1 mg/ml pepsin in 0.5 M acetic acid for 2 h at 37 degrees Celsius followed by multiple buffer washes is recommended. This will improve staining, but due to epitope degradation staining will be weaker than in frozen sections and staining may differ from staining in cryosections. Please note: all denaturing conditions will reduce reactivity and specificity of this antibody.

Form: 0.1 ml is supplied as sterile filtered liquid affinity purified Ig in 0.125M Sodium Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0 with 0.01% sodium azide as preservative.

Concentration: 1 mg/ml

Storage: Store product at 4 degrees Celsius or in aliquots at -20 degrees Celsius in 50% Glycerol for long term storage. Avoid repeated freezing and thawing. Shelf life: one year from dispatch.

Limitations: This product is for research use only and is not approved for use in humans or in clinical

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