

## Collagen Type III Antibody

Rabbit Polyclonal Antibody to Collagen Type III

Catalog Number **R1040**

### Specificity:

This product has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-absorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. Typically less than 1% cross reactivity against other types of 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 III collagens and has negligible cross-reactivity with Type I, II, 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. 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. Collagens for immunization are extensively purified from human and bovine placenta and cartilage by limited pepsin digestion and selective salt precipitation. 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 are used.

### Immunogen:

Collagen type III purified from human and bovine placenta.

### Host:

Rabbit

### Uses and Dilutions:

Westernblotting (1:5,000 - 1:10,000), immunoassay (1:4,000 - 1:8,000 using ABTS as substrate in a sandwich ELISA against 1 ug Collagen III) and immunohistochemistry (dilution 1:50 - 1:200 as a guide for frozen sections). For paraffin embedded sections pretreatment with 1 mg/ml pepsin in 0.5M 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.

### Form:

0.1 ml of affinity purified Ig in 0.125M Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0 containing 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 diagnosis.