Datasheet: 2150-1908

BATCH NUMBER 169549

Description:	RABBIT ANTI RAT COLLAGEN I
Specificity:	COLLAGEN I
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.5 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			1/10 - 1/60
Immunohistology - Paraffin	▪			
ELISA	▪			1/1500 - 1/6000
Western Blotting			▪	
Immunofluorescence	▪			1/10 - 1/60

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species	Rat
Product Form	Purified IgG - lyophilized
Reconstitution	Reconstitute with 500 µl of sterile DI water. Vial contains 0.05 mg of lyophilized antibody.
Preparation	Purified IgG prepared by affinity chromatography on immobilized rat collagen I
Buffer Solution	0.1M Sodium Chloride 0.01M Sodium Phosphate 0.01M Sodium Borate
Preservative Stabilisers	1% Mannitol 1% Dextran

Immunogen	Type I Collagen from rat tail tendon.
External Database Links	**UniProt:** P02454 Related reagents P02466 Related reagents **Entrez Gene:** 29393 Col1a1 Related reagents 84352 Col1a2 Related reagents
RRID	AB_620498
Specificity	**Rabbit anti Rat Collagen I antibody** recognizes both native and heat denatured rat collagen type I. Collagen is located in the extracellular matrix of connective tissues. It is part of the interacting network of proteoglycans and proteins that provides a structural framework for both soft and calcified connective tissues. Type I collagen (~95 kDa) is found in bone, cornea, skin and tendon. Mutations in the encoding gene are associated with osteogenesis imperfecta (Sykes *et al.* 1990), Ehlers Danlos syndrome (Burrows *et al.* 1996), and idiopathic osteoporosis (Pernow *et al.* 2006). Bio-Rad currently do not support the use Rabbit anti Rat Collagen I antibody in western Blotting. However, it has been reported that this antibody has been used successfully for the quantitation of collagen I in rabbit aortic tissue by western blotting (Valero-Muñoz *et al.* 2014).
Immunohistology	It has been reported that this antibody is suitable for use on paraffin embedded formalin fixed sections following treatment with 1 mg/ml pepsin in 0.5 M acetic acid for 2 hours at 37ºC and multiple buffer washes.
References	1. Novotná, J. *et al.* (2001) Hyperoxia and recovery from hypoxia alter collagen in peripheral pulmonary arteries similarly. Physiol Res. 50 (2): 153-63. 2. Hartner A, *et al*. (2006) Angiotensin II formation in the kidney and nephrosclerosis in Ren-2 hypertensive rats. Nephrol Dial Transplant. 21:1778-85. 3. Klanke B, *et al*. (2008) Blood pressure versus direct mineralocorticoid effects on kidney inflammation and fibrosis in DOCA-salt hypertension. Nephrol Dial Transplant. 23: 3456-63. 4. Daniel, C. *et al.* (2009) Thrombospondin-2 therapy ameliorates experimental glomerulonephritis via inhibition of cell proliferation, inflammation, and TGF-beta activation. Am J Physiol Renal Physiol. 297: F1299-309. 5. Jones, H.B. *et al.* (2012) Quantitative Histopathological Assessment of Retardation of Islets of Langerhans Degeneration in Rosiglitazone-dosed Obese ZDF Rats Using Combined Insulin and Collagens (I and III) Immunohistochemistry with Automated Image Analysis and Statistical Modeling. Toxicol Pathol. 41: 425-44. 6. Aktaş, A. *et al.* (2013) Ankaferd-Induced Early Soft Tissue Wound Healing in an Experimental Rat Model. Turkiye Klinikleri J Med Sci 2013;33(6): 1344-53.

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10. Hartner, A. *et al.* (2016) Impaired Neovascularization and Reduced Capillary Supply in the Malignant vs. Non-malignant Course of Experimental Renovascular Hypertension. Front Physiol. 7: 370.
11. Martínez-Martínez E *et al.* (2016) The lysyl oxidase inhibitor (β-aminopropionitrile) reduces leptin profibrotic effects and ameliorates cardiovascular remodeling in diet-induced obesity in rats. J Mol Cell Cardiol. 92: 96-104.
12. Dergilev, K.V. *et al.* (2017) Comparison of cardiac stem cell sheets detached by Versene solution and from thermoresponsive dishes reveals similar properties of constructs. Tissue Cell. 49 (1): 64-71.
13. Segreto, F. *et al.* (2018) The role of angiogenesis, inflammation and estrogen receptors in breast implant capsules development and remodeling. J Plast Reconstr Aesthet Surg. 71 (5): 637-43.
14. Menendez-Castro, C. *et al.* (2020) Correlations Between Interleukin-11 Expression and Hypertensive Kidney Injury in a Rat Model of Renovascular Hypertension. Am J Hypertens. 33 (4): 331-40.

Storage	Prior to reconstitution store at +4°C. After reconstitution store at -20°C. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody.
Guarantee	Guaranteed until date of expiry. Please see product label.
Health And Safety Information	Material Safety Datasheet documentation #20482 available at: https://www.bio-rad-antibodies.com/SDS/2150-1908
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE

Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A)
TidyBlot WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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