ROCKLAND

Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-403-105

Collagen Type III Antibody Peroxidase Conjugated

Overview

Description:	Anti-Collagen Type III (RABBIT) Antibody Peroxidase Conjugated - 600-403-105
Item No.:	600-403-105
Size:	50 µg
Applications:	IHC
Reactivity:	Human, Bovine
Host Species:	Rabbit

Product Details

Background:	In muscle tissue, collagen serves as a major component of the endomysium. Collagen constitutes one to two percent of muscle tissue, and accounts for 6% of the weight of strong, tendinous muscles. A collagen may be defined as a protein containing sizable domain(s) of triple-helical conformation. Type IV collagen is a major macromolecular constituent of basement membranes and can be readily isolated from basement-membrane-rich tissues or highly vascularized tissues such as the placental villi. This collagen appears to be largely restricted to structures identifiable as basement membranes. In contrast, type VI collagen appears to be prevalent in several tissues even though it has been isolated largely from placental villi preparations. The extent to which type VII and VIII collagens are distributed is not known.
Synonyms:	rabbit anti-Collagen Type III antibody peroxidase conjugation, HRP conjugated rabbit anti-Collagen Type III antibody, Collagen type III alpha 1 antibody, Collagen type III alpha antibody, EDS4A antibody, Ehlers Danlos syndrome type IV, autosomal dominant antibody, Fetal collagen antibody, COL3A1, Collagen alpha-1 (III) chain
Host Species:	Rabbit
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	COL3A1

Reactivity:	Human, Bovine
Immunogen Type:	Native Protein
Immunogen:	Collagen Type III from human and bovine placenta
Purity/Specificity:	This product has been prepared by immunoaffinity chromatography using immobilized antigens. 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 expected cross-reactivity with Type I and negligible cross reactivity with Type 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 has not been tested.
Relevant Links:	• NCBI - NP_000081.1 • UniProtKB - P02461 • GeneID - 1281

Application Details

Suggested Applications:	IHC (Based on references)
Application Note:	Anti-Collagen Type III Peroxidase Conjugated Antibody is suitable for western blotting, IHC and for ELISA. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	1:200 - 1:1,000
IP:	1:100
WB:	1:1,000 - 1:5,000

Formulation

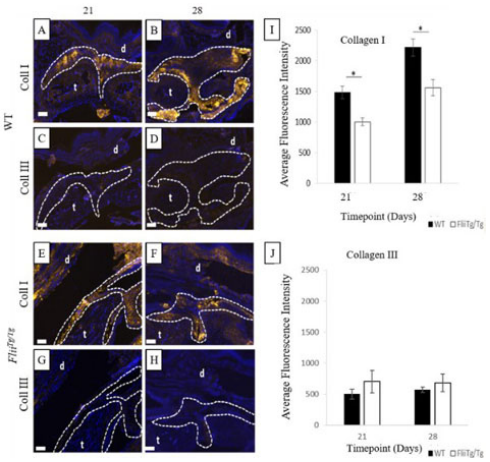
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Thimerosal
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Reconstitution Volume:	50µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry
Immunohistochemistry of Anti-Collagen Type III Peroxidase Conjugated.
WT mice have significantly increased collagen type I expression in the tendon adhesions. Representative images of collagen type I expression (gold) in the tendon adhesions of WT (a-b) and FliiTg/Tg (e-f) mice and collagen type III expression (gold) in the tendon adhesions of WT (c-d) FliiTg/Tg (g-h) at 21 and 28 days post 50% partial laceration injury. (i) WT mice have significantly upregulated collagen type I levels in the adhesions compared with FliiTg/Tg mice. (j) No significant difference was noted in collagen type III levels in WT and FliiTg/Tg mice, although detectable levels of collagen type III were found in the FliiTg/Tg mice. DAPI is represented as blue fluorescence; t, tendon; d, dermis. Dotted line represents tendon adhesion area. Magnification × 10. Scale bar = 200 µM and refers to all images. Data represented as mean ± SEM. *p ≤ 0.05. n = 6. Fig. 7. PMID: 32854733.

References

- Jackson JE et al. Increasing the level of cytoskeletal protein Flightless I reduces adhesion formation in a murine digital flexor tendon model. *J Orthop Surg Res.* (2020)

www.rockland.com
tech@rockland.com
+1 484.791.3823

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.