

Datasheet for 600-402-103

## Collagen Type I Antibody Fluorescein Conjugated

### Overview

<b>Description:</b>	Anti-Collagen Type I (RABBIT) Antibody Fluorescein Conjugated - 600-402-103
<b>Item No.:</b>	600-402-103
<b>Size:</b>	50 µg
<b>Applications:</b>	FC, WB
<b>Reactivity:</b>	Human, Mouse, Rat, Bovine
<b>Host Species:</b>	Rabbit

### Product Details

<b>Background:</b>	COLLAGEN Type I Fluorescein Conjugated Antibody is specific for Collagen Type I. Collagen Type I (Type-I collagen) is the most abundant collagen of the human body. It is present in scar tissue, the end product when tissue heals by repair. It is also found in tendons, the endomysium of myofibrils and the organic part of bone. Anti-collagen Type I antibody is suitable for Cancer research and other general research.
<b>Synonyms:</b>	rabbit anti-collagen type I antibody fluorescein conjugation, FITC conjugated rabbit anti-collagen type I antibody, Collagen Of Skin Tendon And Bone, Collagen Type 1 antibody, Collagen type I alpha 1 antibody, Collagen alpha-1 (I) chain, Alpha-1 type I collagen, type 1 procollagen alpha 1
<b>Host Species:</b>	Rabbit
<b>Conjugate:</b>	Fluorescein (FITC)
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG
<b>F/P Ratio:</b>	3.48

### Target Details

<b>Gene Name:</b>	COL1A1
<b>Reactivity:</b>	Human, Mouse, Rat, Bovine
<b>Immunogen Type:</b>	Native Protein

<b>Immunogen:</b>	Collagen Type I from human and bovine placenta.
<b>Purity/Specificity:</b>	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 I collagens and has expected cross-reactivity with Type III 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.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_000079.2</a></li><li>• <a href="#">UniProtKB - P02452</a></li><li>• <a href="#">GenelD - 1277</a></li></ul>

## Application Details

<b>Suggested Applications:</b>	FC, WB (Based on references)
<b>Application Note:</b>	Anti-COLLAGEN Type I Fluorescein Conjugated Antibody is suitable for western blot, immunoprecipitation, Flow Cytometry, and immunohistochemistry. Researchers should determine optimal titers for applications that are not stated below.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:3,000 - 1:6,000
<b>FC:</b>	5µg/mL
<b>IHC:</b>	1:50 - 1:200
<b>IP:</b>	1:100
<b>WB:</b>	1:3,000 - 1:6,000

## Formulation

<b>Physical State:</b>	Lyophilized
<b>Concentration:</b>	1 mg/mL by UV absorbance at 280 nm
<b>Buffer:</b>	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.01% (w/v) Sodium Azide
<b>Stabilizer:</b>	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
<b>Reconstitution Volume:</b>	50µL
<b>Reconstitution Buffer:</b>	Restore with deionized water (or equivalent)

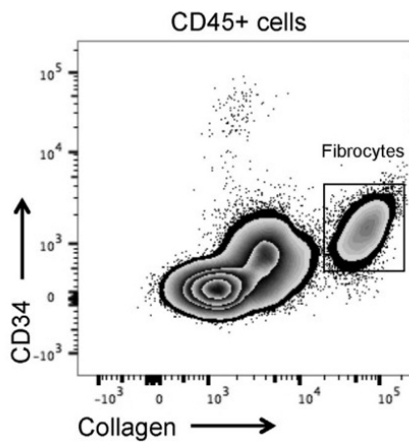
## Shipping & Handling

**Shipping Condition:** Ambient

**Storage Condition:** Store vial at 4° C prior to restoration. Restore with 0.05 mL of deionized water (or equivalent). 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.

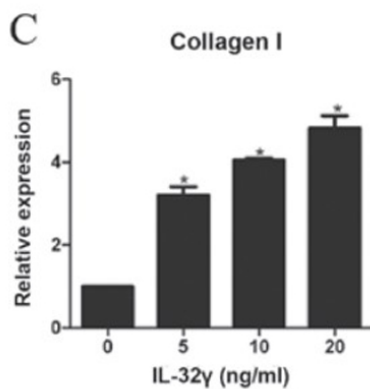
## Images



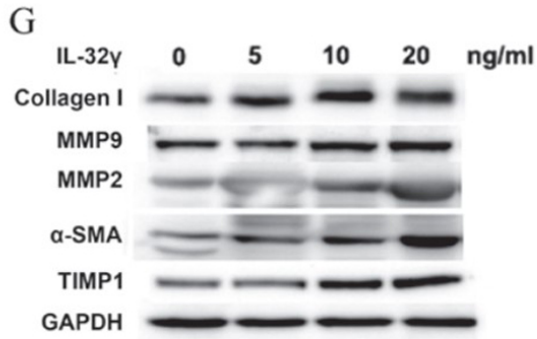
### Flow Cytometry

Gating strategy for flow cytometric analysis and cell sorting of circulating fibrocytes using the LIVE/DEAD Fixable Blue Dead Cell Stain kit.

For intracellular staining of type I collagen-FITC on B cells cells were fixed and permeabilized with the BD Cytotfix/Cytoperm kit. PMID: 31319101.



Effect of different concentrations (0, 5, 10 and 20 ng/ml) of IL-32γ on LX-2 activation phenotypes. Reverse transcription-quantitative polymerase chain reaction assessing mRNA levels of α-SMA, (C) collagen I, representing the activation level of LX-2. PMID: 29042996.

**Western Blot**

Effect of different concentrations (0, 5, 10 and 20 ng/ml) of IL-32 $\gamma$  on LX-2 activation phenotypes. (G) Western blot analysis was used to measure collagen I, MMP9, MMP2,  $\alpha$ -SMA, TIMP1 and GAPDH expression in whole cell extracts. PMID: 29042996.

**References**

- Della-Torre E, Rigamonti E, Perugino C, et al. B lymphocytes directly contribute to tissue fibrosis in patients with IgG4-related disease. *J Allergy Clin Immunol.* (2020)
- Liu et al. IL-32 $\gamma$  promotes integrin  $\alpha\beta$ 6 expression through the activation of NF- $\kappa$ B in HSCs. *Experimental and Therapeutic Medicine* (2017)

**Disclaimer**

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