

For Research Use Only

# Collagen Type I Recombinant antibody

Catalog Number: 83752-5-RR



## Basic Information

<b>Catalog Number:</b> 83752-5-RR	<b>GenBank Accession Number:</b> BC054498	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1278	<b>CloneNo.:</b> 240665F8
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P08123	<b>Recommended Dilutions:</b> IHC 1:500-1:2000 IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> collagen, type I, alpha 2	
<b>Immunogen Catalog Number:</b> AG6281	<b>Calculated MW:</b> 1366 aa, 130 kDa	
	<b>Observed MW:</b> 120-130 kDa	

## Applications

**Tested Applications:**  
IHC, IF/ICC, FC (Intra), ELISA

**Species Specificity:**  
human, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

IHC : human skin tissue,

IF/ICC : HSC-T6 cells,

## Background Information

Type I collagen, the major structural component of connective tissues such as skin, tendon and bone, is the most abundant and widely expressed collagen in humans (PMID: 7620364; 8645190; 9016532). Type I collagen is a heterotrimer comprising one alpha 2(I) and two alpha 1(I) chains which are encoded by the unlinked loci COL1A2 and COL1A1 respectively. Type I collagen has a molecular mass of about 250-300 kDa, while the alpha 2(I) chain has a molecular weight of about 100-140 kDa. Mutations in COL1A2 gene are associated with osteogenesis imperfecta, Ehlers-Danlos syndrome, idiopathic osteoporosis, and atypical Marfan syndrome. This antibody raised against 1017-1366 aa of human pro-alpha 2 chain of type I collagen can recognize collagen alpha 2(1) chain and C-terminal propeptide of pro-alpha 2(1) chain.

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

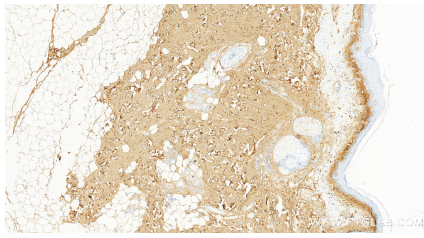
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

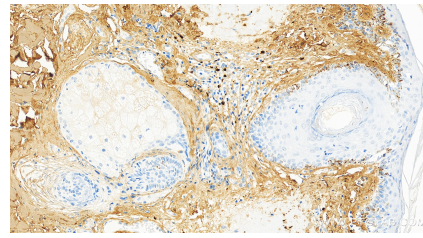
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

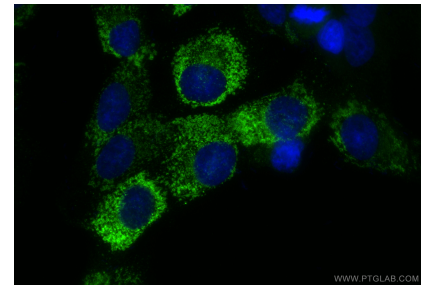
## Selected Validation Data



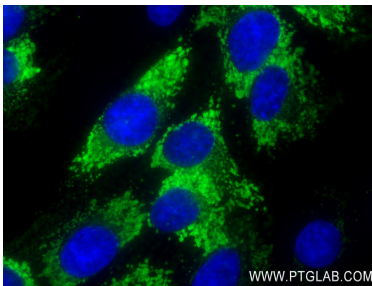
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 83752-5-RR (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



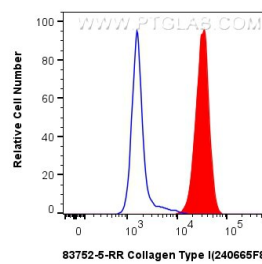
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 83752-5-RR (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



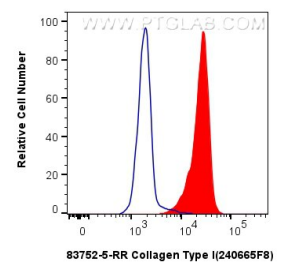
Immunofluorescent analysis of (4% PFA) fixed HSC-T6 cells using Collagen Type I antibody (83752-5-RR, Clone: 240665F8) at dilution of 1:500 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



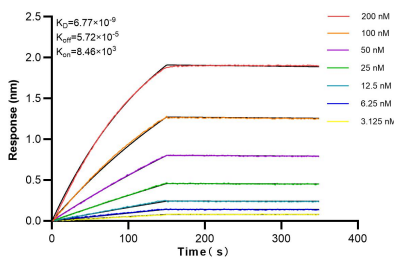
Immunofluorescent analysis of (4% PFA) fixed HSC-T6 cells using COL1A2 antibody (83752-5-RR, Clone: 240665F8) at dilution of 1:250 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



$1 \times 10^6$  HSC-T6 cells were intracellularly stained with 0.25  $\mu$ g Collagen Type I Recombinant antibody (83752-5-RR, Clone:240665F8) and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25  $\mu$ g Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



$1 \times 10^6$  SW480 cells were intracellularly stained with 0.25  $\mu$ g Collagen Type I Recombinant antibody (83752-5-RR, Clone:240665F8) and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25  $\mu$ g Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83752-5-RR against Human COL1A2 were performed. The affinity constant is 6.77 nM.