

For Research Use Only

# Collagen Type I Polyclonal antibody

Catalog Number: 14695-1-AP

1086 Publications



## Basic Information

<b>Catalog Number:</b> 14695-1-AP	<b>GenBank Accession Number:</b> BC054498	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 750 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1278	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:500-1:2000
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P08123	
<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> 130-150 kDa	

## Applications

**Tested Applications:**  
WB, IHC, FC (Intra), IP, ELISA

**Cited Applications:**  
WB, IHC, IF, FC (Intra), IP, CoIP

**Species Specificity:**  
human, pig

**Cited Species:**  
human, mouse, rat, pig, rabbit, canine, chicken, bovine, toad

**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:**

**WB :** pig skin tissue, human placenta tissue, MG-63 cells, Saos-2 cells, U-87 MG cells

**IP :** U-87 MG cells,

**IHC :** human skin cancer tissue, human colon tissue, human oesophagus cancer tissue, human placenta tissue

## 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(I) chain and C-terminal propeptide of pro-alpha 2(I) chain.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lishu Feng	27689865	Angle Orthod	WB
Chen Chen	36212944	Evid Based Complement Alternat Med	IF
Kun Zhao	36167556	Biol Direct	WB

## Storage

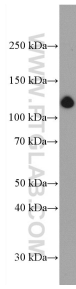
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
Aliquoting is unnecessary for -20°C storage

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

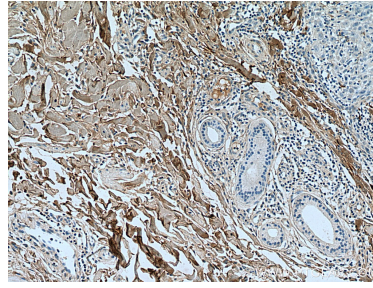
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

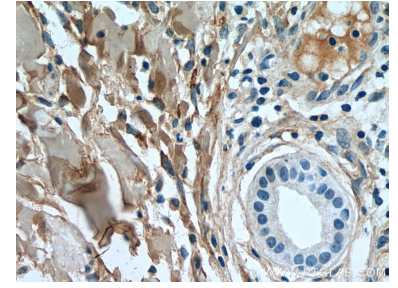
## Selected Validation Data



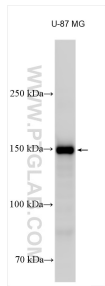
pig skin tissue were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



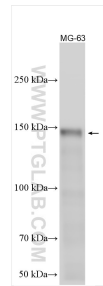
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



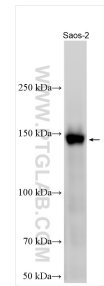
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



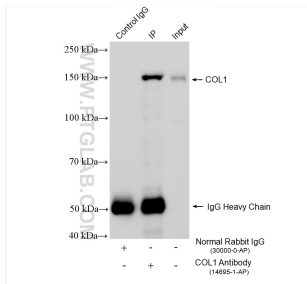
Various lysates were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



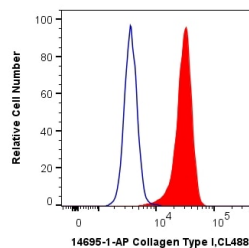
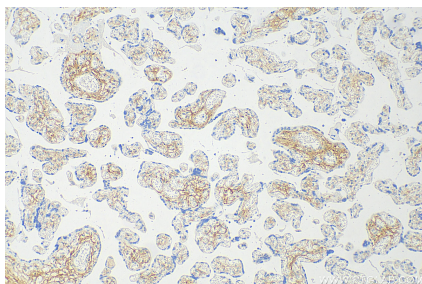
IP result of anti-Collagen Type I (IP:14695-1-AP, 4ug; Detection:14695-1-AP 1:2000) with U-87 MG cells lysate 1920 ug.



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 14695-1-AP (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 colon tissue slide using 14695-1-AP (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 placenta tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

$1 \times 10^6$  SW480 cells were intracellularly stained with 0.2 ug Anti-Human Collagen Type I (14695-1-AP) and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).