

# Collagen Type I Polyclonal antibody

Catalog Number: 14695-1-AP

1159 Publications

## Basic Information

### Catalog Number:

14695-1-AP

### Size:

150ul, Concentration: 750 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG6281

### GenBank Accession Number:

BC054498

### GeneID (NCBI):

1278

### UNIPROT ID:

P08123

### Full Name:

collagen, type I, alpha 2

### Calculated MW:

1366 aa, 130 kDa

### Observed MW:

130-150 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

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

FC (Intra): 0.20 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, FC (Intra), IP, ColP

### 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

FC (Intra): SW480 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.

## 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

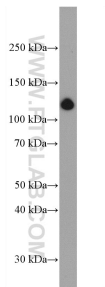
For technical support and original validation data for this product please contact:

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

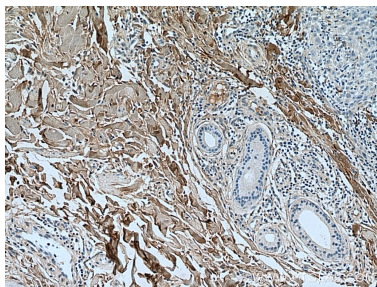
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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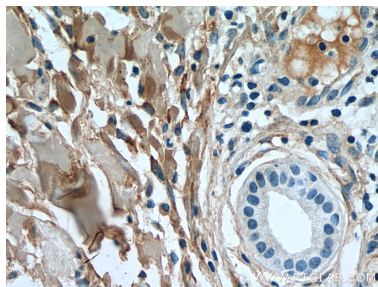
Selected Validation Data



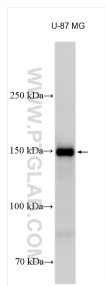
pig skin tissue were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



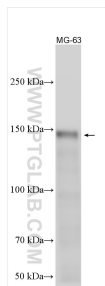
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



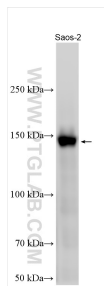
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



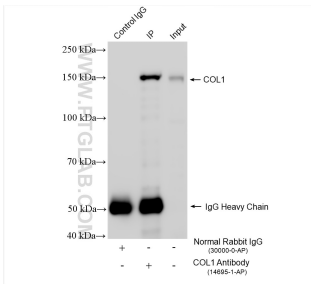
Various lysates were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



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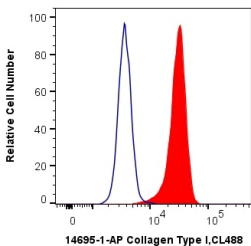
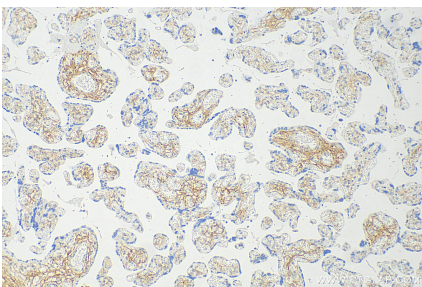
IP result of anti-Collagen Type I (IP:14695-1-AP, 4ug; Detection:14695-1-AP 1:2000) with U-87 MG cells lysate 1920 ug.



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).



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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).

1X10<sup>6</sup> 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).