

Collagen Type I Polyclonal antibody

Catalog Number: 14695-1-AP

771 Publications

Basic Information

Catalog Number:

14695-1-AP

Size:

150ul, Concentration: 600 µg/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:

120-130 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:4000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:500-1:2000

Applications

Tested Applications:

FC, IHC, IP, WB, ELISA

Cited Applications:

FC, IF, IHC, IP, WB

Species Specificity:

human, pig

Cited Species:

human, chicken, rat, mouse, rabbit, pig, toad, canine, bovine

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: human placenta tissue,

IHC: human skin cancer tissue, human colon tissue, human oesophagus cancer 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

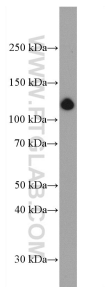
For technical support and original validation data for this product please contact:

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

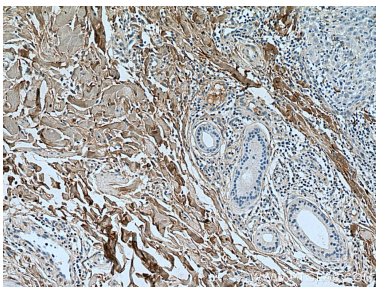
E: proteintech@ptglab.com
W: ptglab.com

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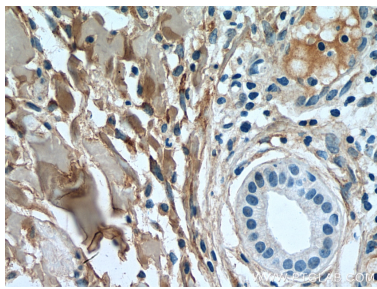
Selected Validation Data



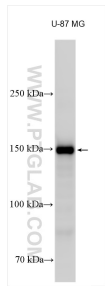
pig skin tissue were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



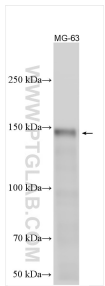
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



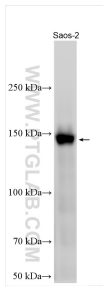
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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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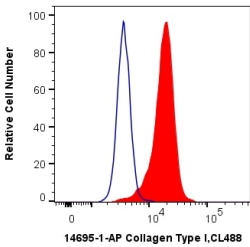
IP result of anti-Collagen Type I (IP:14695-1-AP, 4ug; Detection:14695-1-AP 1:2000) with human placenta tissue lysate 600 ug.



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).



1X10⁶ SW480 cells were intracellularly stained with 0.4 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 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).