

For Research Use Only

Collagen Type I Polyclonal antibody

Catalog Number: 14695-1-AP

1189 Publications



Basic Information

Catalog Number:

14695-1-AP

Concentration:

750 ug/ml

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 10⁶ 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, duck

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

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

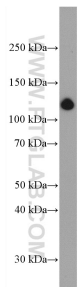
T: 4006900926

E: Proteintech-CN@ptglab.com

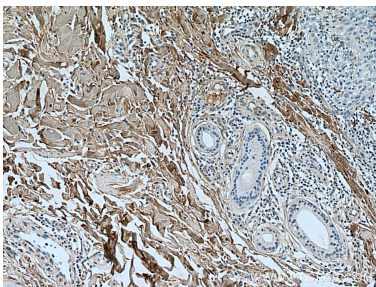
W: ptgcn.com

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

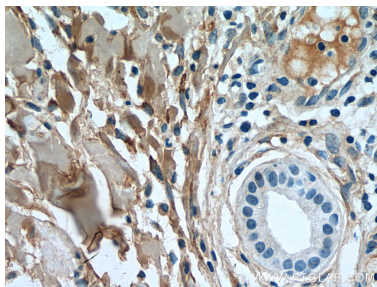
Selected Validation Data



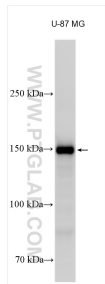
pig skin tissue were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



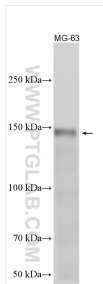
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



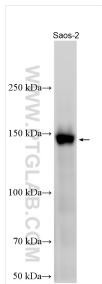
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



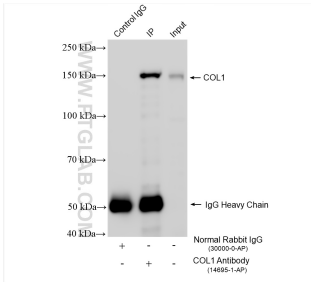
Various lysates were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



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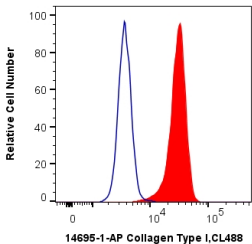
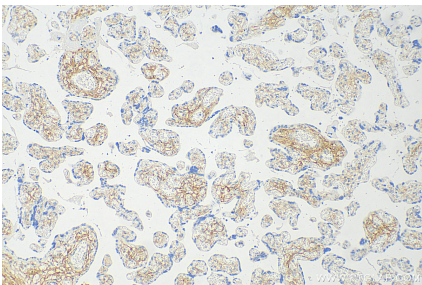
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IP result of anti-Collagen Type I (IP:14695-1-AP, 4ug; Detection:14695-1-AP 1:2000) with U-87 MG cells lysate 1920 ug.

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).

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).

1X10⁶ 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).