

Collagen Type I Polyclonal antibody

Catalog Number: 14695-1-AP **782 Publications**

Basic Information

Catalog Number: 14695-1-AP	GenBank Accession Number: BC054498	Purification Method: Antigen affinity purification
Size: 600 µg/ml	GeneID (NCBI): 1278	Recommended Dilutions: WB 1:1000-1:4000
Source: Rabbit	UNIPROT ID: P08123	IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate
Isotype: IgG	Full Name: collagen, type I, alpha 2	IHC 1:500-1:2000
Immunogen Catalog Number: AG6281	Calculated MW: 1366 aa, 130 kDa	
	Observed MW: 120-130 kDa	

Applications

Tested Applications:
FC, IHC, IP, WB, ELISA**Cited Applications:**
WB, IP, IF, FC, IHC**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

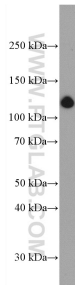
Storage

Storage:
Store at -20°C. Stable for one year after shipment.

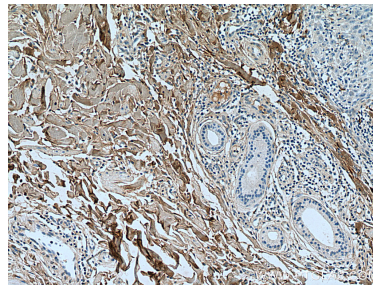
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

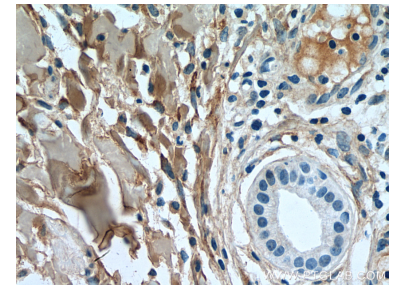
Selected Validation Data



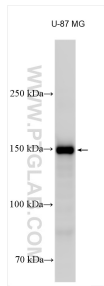
pig skin tissue were subjected to SDS PAGE followed by western blot with 14695-1-AP (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



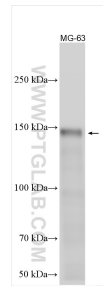
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



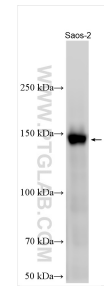
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 14695-1-AP (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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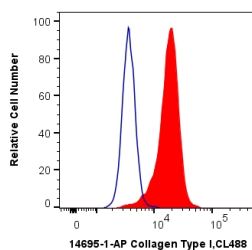
IP result of anti-Collagen Type I (IP:14695-1-AP, 4ug; Detection:14695-1-AP 1:2000) with human placenta tissue lysate 600 ug.



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).