

For Research Use Only

Collagen Type I Recombinant antibody

Catalog Number: 83752-5-RR



Basic Information

Catalog Number: 83752-5-RR	GenBank Accession Number: BC054498	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 1278	CloneNo.: 240665F8
Source: Rabbit	UNIPROT ID: P08123	Recommended Dilutions: IHC 1:500-1:2000 IF/ICC 1:125-1:500
Isotype: IgG	Full Name: collagen, type I, alpha 2	
Immunogen Catalog Number: AG6281	Calculated MW: 1366 aa, 130 kDa	
	Observed MW: 120-130 kDa	

Applications

Tested Applications: IHC, IF/ICC, FC (Intra), ELISA	Positive Controls: IHC : human skin tissue, IF/ICC : HSC-T6 cells,
Species Specificity: human, rat	
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

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.

Storage

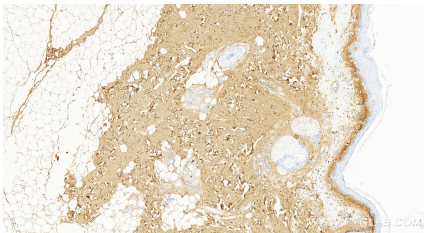
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

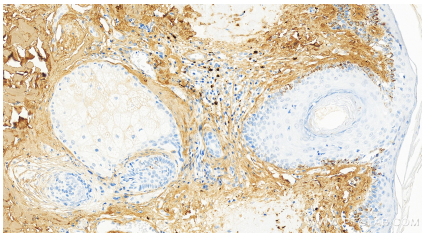
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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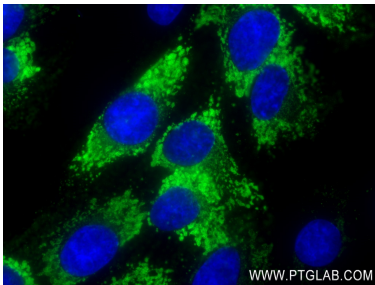
Selected Validation Data



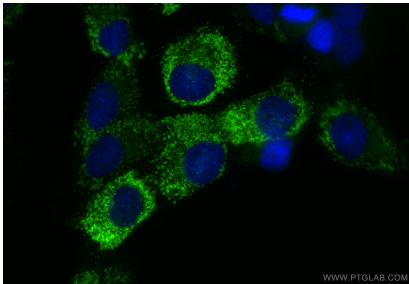
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 83752-5-RR (Collagen Type I antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



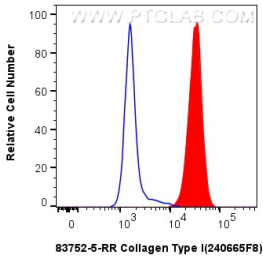
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 83752-5-RR (Collagen Type I antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



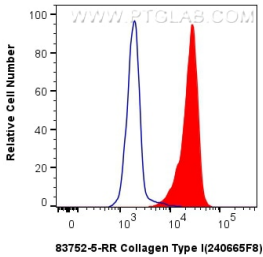
Immunofluorescent analysis of (4% PFA) fixed HSC-T6 cells using COL1A2 antibody (83752-5-RR, Clone: 240665F8) at dilution of 1:250 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



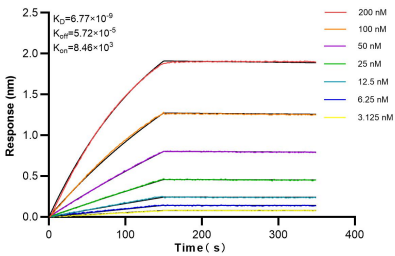
Immunofluorescent analysis of (4% PFA) fixed HSC-T6 cells using Collagen Type I antibody (83752-5-RR, Clone: 240665F8) at dilution of 1:500 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10⁶ HSC-T6 cells were intracellularly stained with 0.25 ug Collagen Type I Recombinant antibody (83752-5-RR, Clone:240665F8) and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



1x10⁶ SW480 cells were intracellularly stained with 0.25 ug Collagen Type I Recombinant antibody (83752-5-RR, Clone:240665F8) and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83752-5-RR against Human COL1A2 were performed. The affinity constant is 6.77 nM.