

For Research Use Only

# Collagen Type I Monoclonal antibody

Catalog Number: 67288-1-Ig **246 Publications**



## Basic Information

<b>Catalog Number:</b> 67288-1-Ig	<b>GenBank Accession Number:</b> NM_000088	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1277	<b>CloneNo.:</b> 1E9A7
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P02452	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000 IHC: 1:2500-1:10000 IF-P: 1:200-1:800
<b>Isotype:</b> IgG1	<b>Full Name:</b> collagen, type I, alpha 1	
	<b>Calculated MW:</b> 139 kDa	
	<b>Observed MW:</b> 100-140 kDa 200kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF-P, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB, IHC, IF, ColP	<b>WB :</b> pig colon tissue, human cervical cancer tissue, human placenta tissue, MG-63 cells, pig lung tissue, pig skin tissue
<b>Species Specificity:</b> human, pig	<b>IHC :</b> human breast cancer tissue, human colon tissue, human colon cancer tissue
<b>Cited Species:</b> human, pig, rabbit, zebrafish	<b>IF-P :</b> human colon cancer tissue,
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## 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. Mutations in COL1A1 are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. This antibody raised against a synthesized peptide corresponding to 1206-1218 aa of human pro-alpha 1 chain of type I collagen recognize collagen alpha-1(I) chain. The presence of unprocessed, intermediate, and mature chains of type I collagen was clearly detected only in static constructs. Indeed, in sponges cultured under perfusion the presence of type I collagen was mainly restricted to mature chains, suggesting that HACs were no longer actively producing type I collagen (PMID: 27584727). It is reported that the molecular weight is 200kDa (PMID: 28526934).

## Notable Publications

Author	Pubmed ID	Journal	Application
Siyuan Dong	33062455	PeerJ	IHC
Fei Yao	36163271	Inflamm Regen	WB
Xia Niu	34681175	Pharmaceuticals (Basel)	WB

## Storage

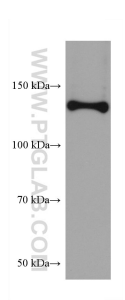
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

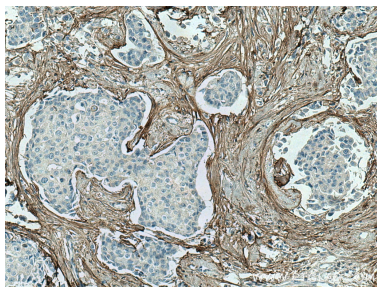
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

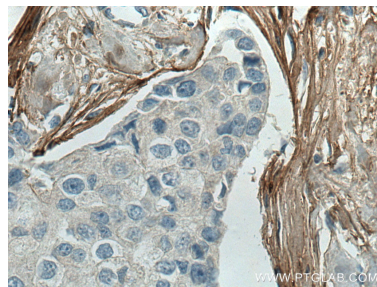
Selected Validation Data



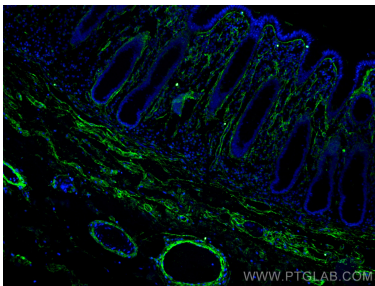
pig colon tissue were subjected to SDS PAGE followed by western blot with 67288-1-Ig (Collagen Type I antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



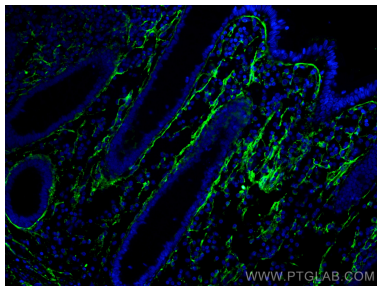
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67288-1-Ig (Collagen Type I antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



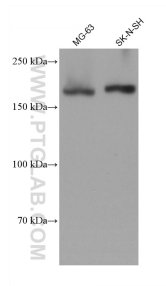
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67288-1-Ig (Collagen Type I antibody) at dilution of 1:5000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



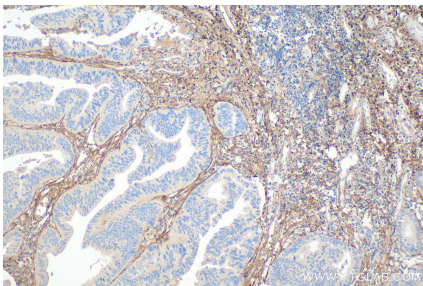
Immunofluorescent analysis of (4% PFA) fixed human colon cancer tissue using Collagen Type I antibody (67288-1-Ig, Clone: 1E9A7 ) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed human colon cancer tissue using Collagen Type I antibody (67288-1-Ig, Clone: 1E9A7 ) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 67288-1-Ig (Collagen Type I antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67288-1-Ig (Collagen Type I antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).