For Research Use Only

Collagen Type I Monoclonal antibody

Catalog Number:67288-1-Ig 240 Publications

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Basic Information

Catalog Number:
67288-1-Ig

Concentration:
1000 ug/ml

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:
NM_000088

GeneID (NCBI):
1277

UNIPROT ID:
P02452

Full Name:
collagen, type I, alpha 1

Calculated MW:
139 kDa

Observed MW:
120-130 kDa

Purification Method:
Protein G purification

CloneNo.:
1E9A7

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:2500-1:10000
IF-P: 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF-P, ELISA

Cited Applications:
WB, IHC, IF, CoIP

Species Specificity:
human, pig

Cited Species:
human, pig, rabbit, zebrafish

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 colon tissue, human cervical cancer tissue, human placenta tissue, pig lung tissue, pig skin tissue

IHC : human breast cancer tissue, human colon tissue, human colon cancer tissue

IF-P : human colon 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. 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).

Notable Publications

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

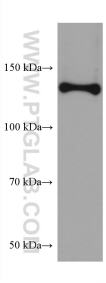
Storage

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

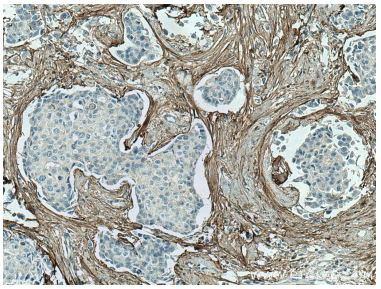
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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

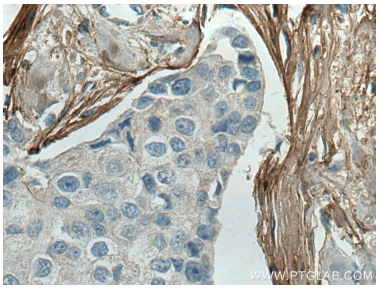
Selected Validation Data



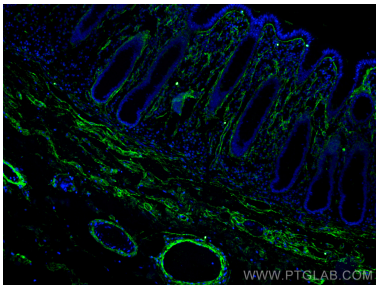
pig colon tissue were subjected to SDS PAGE followed by western blot with 67288-1-Ig (Collagen Type I antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



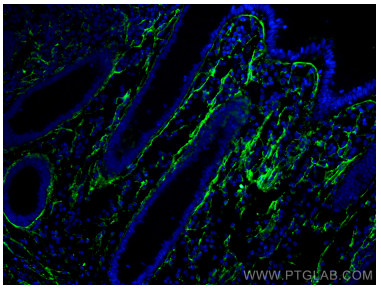
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67288-1-Ig (Collagen Type I antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



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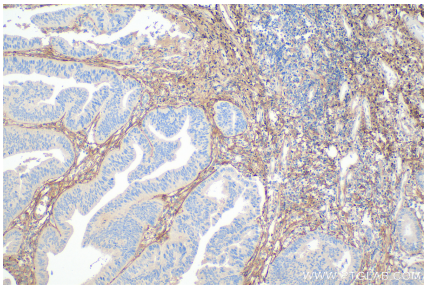

Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67288-1-Ig (Collagen Type I antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).