ARG21965
anti-Collagen I antibody, pre-adsorbed

Package: 100 µg, 50 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes Collagen I
Tested Reactivity	Hu, Ms, Rat, Bov, Cat, Chk, Dog, Elp, Gpig, Hm, Pig, Rb, Sheep
Tested Application	ELISA, EM, FACS, FLISA, ICC/IF, IHC-Fr, IHC-P, IP, WB
Specificity	The antibody reacts with conformational determinants on type I collagen. The antibody is pre-adsorbed with Collagen types II, III, IV, V and VI, so the antibody may not react with Collagen types II, III, IV, V and VI.
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	Collagen I
Species	Human
Immunogen	Human Type I Collagen
Conjugation	Un-conjugated
Alternate Names	collagen type I alpha 1 chain; OI1; OI2; OI3; OI4; EDSC; Collagen alpha-1(I) chain; Alpha-1 type I collagen; Collagen type I alpha 2 chain; Collagen alpha-2(I) chain

Application Instructions

Pre Adsorbed	Collagen types II, III, IV, V and VI.

Application table

Application	Dilution
ELISA	1:1,000 – 1:4,000
EM	Assay-dependent
FACS	Assay-dependent
FLISA	1:200 – 1:400
ICC/IF	1:40 – 1:1,000
IHC-Fr	1:10 - 1:40
IHC-P	1:10 - 1:40
IP	Assay-dependent
WB	1:200 – 1:1,000

Application Note

WB: The antibody reacts with native and denature form of Collagen I protein.
IHC-P: Antigen retrieval: select one of below:
1. Digestion with 0.1% pepsin from porcine gastric mucosa 3200–4500 units per mg (Sigma, Vienna, Austria) in 0.5 M acetic acid for 2 h at 37°C.
2. Microwave for 4 X 5 min at 800W in 0.01 M Sodium citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size	~120-190 kDa (depending on the sample types)

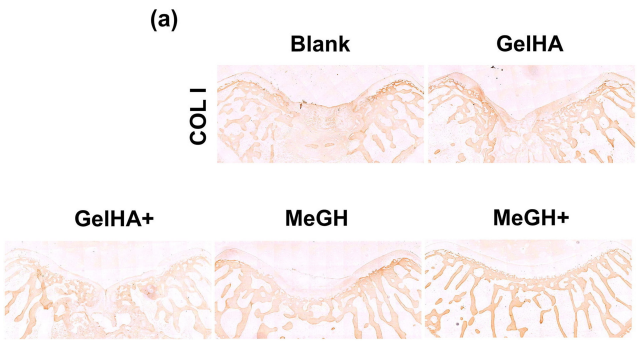
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	BBS (pH 8.2)
Concentration	0.4 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	COL1A1; COL1A2
Gene Full Name	collagen, type I
Background	Collagen type I is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. Mutations in this gene are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish, Feb 2008]
Function	Type I collagen is a member of group I collagen (fibrillar forming collagen). [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30346 Myofibroblast / Fibrosis Antibody Panel Related products: Collagen I antibodies; Collagen I ELISA Kits; Collagen I Duos / Panels; Anti-Goat IgG secondary antibodies; Related news: Collagen I antibody for studying rabbit bone differentiation New antibody panels for Myofibroblasts and CAFs
Calculated Mw	COL1A1: 139 kDa COL1A2: 129 kDa
PTM	Proline residues at the third position of the tripeptide repeating unit (G-X-P) are hydroxylated in some or all of the chains. Proline residues at the second position of the tripeptide repeating unit (G-P-X) are hydroxylated in some of the chains. O-linked glycan consists of a Glc-Gal disaccharide bound to the oxygen atom of a post-translationally added hydroxyl group.

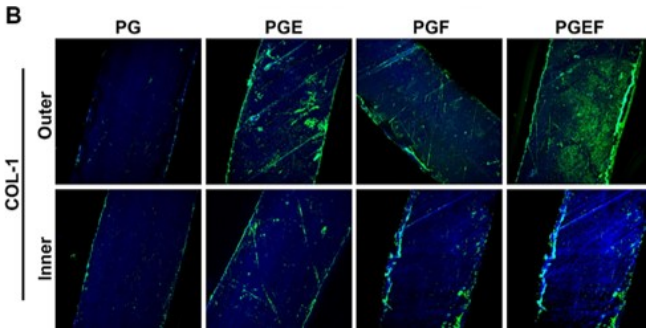
Images



ARG21965 anti-Collagen I antibody, pre-adsorbed IHC-P image

Immunohistochemistry: Rabbit osteochondral stained with ARG21965 anti-Collagen I antibody, pre-adsorbed at 1:100 dilution.

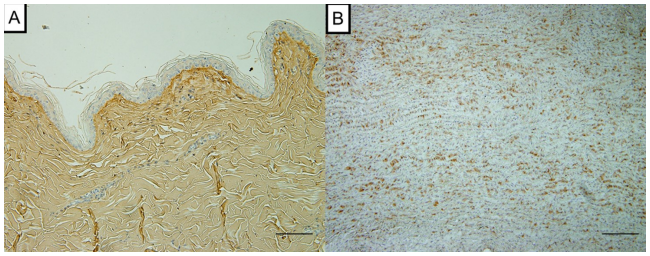
From Wenli Dai et al. Enhanced osteochondral repair with hyaline cartilage formation using an extracellular matrix-inspired natural scaffold (2023), doi: 10.1016/j.scib.2023.07.050, Fig. 7a.



ARG21965 anti-Collagen I antibody, pre-adsorbed ICC/IF image

Immunofluorescence: Rabbit synovium-derived mesenchymal stem cell stained with ARG21965 anti-Collagen I antibody, pre-adsorbed at 1:1000 dilution.

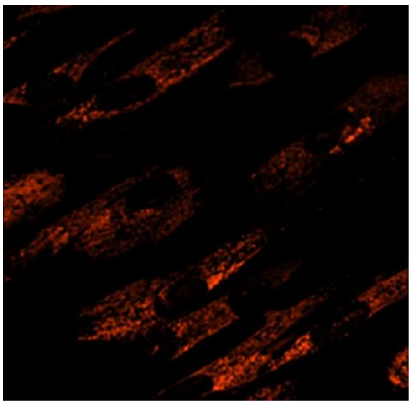
From Zong Li e et al. Chemical Engineering Journal, (2023), doi: 10.1016/j.cej.2023.145209, Fig. 4B.



ARG21965 anti-Collagen I antibody, pre-adsorbed IHC-P image

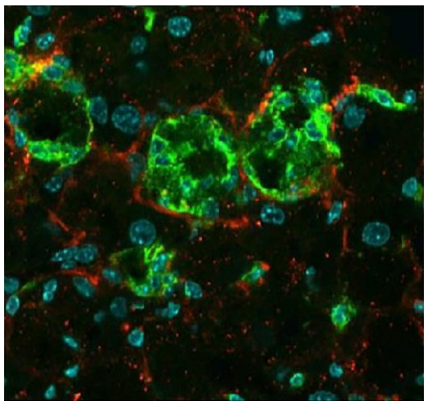
Immunohistochemistry: Canine aorta mesothelial stained with ARG21965 anti-Collagen I antibody, pre-adsorbed at 1:500 dilution.

From Masakazu Shimada et al. PLoS One. (2022), doi: 35061786, Fig. 1.



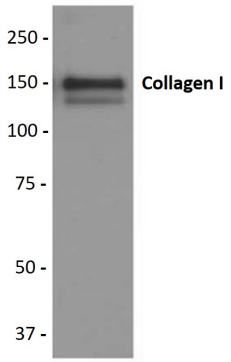
ARG21965 anti-Collagen I antibody, pre-adsorbed ICC/IF image

Immunofluorescence: Human fibroblasts were stained with ARG21965 anti-Collagen I antibody (pre-adsorbed).



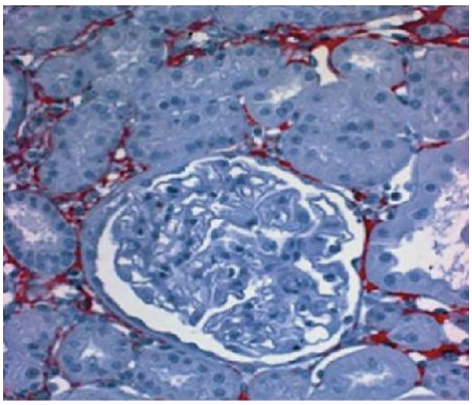
ARG21965 anti-Collagen I antibody, pre-adsorbed IHC-Fr image

Immunohistochemistry: Frozen MC4R-KO Mouse liver section was stained with ARG21965 anti-Collagen I antibody (pre-adsorbed), anti-F4/80 antibody followed by secondary antibodies and DAPI.



ARG21965 anti-Collagen I antibody, pre-adsorbed WB image

Western blot: Purified Human Type I Collagen stained with ARG21965 anti-Collagen I antibody (pre-adsorbed).



ARG21965 anti-Collagen I antibody, pre-adsorbed IHC-P image

Immunohistochemistry: Paraffin embedded Rat kidney section post uninephrectomy was stained with ARG21965 anti-Collagen I antibody (pre-adsorbed) followed by a secondary antibody and AEC.