

ARG52248 anti-Collagen I, alpha 1 telopeptide antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Collagen I, alpha 1 telopeptide
Tested Reactivity	Hu, Ms, Sheep
Predict Reactivity	Amph, Bird, Mamm
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Collagen I, alpha 1 telopeptide
Species	Human
Immunogen	Synthetic peptide corresponding to amino acid residues specific to the collagen I, alpha 1 telopeptide conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	OI1; OI2; OI3; OI4; EDSC; Collagen alpha-1(I) chain; Alpha-1 type I collagen

Application Instructions

Application table	Application	Dilution
	IHC-P	1:100
	WB	1:1000

Application Note

Specific for the ~ 140 kDa telopeptide portion of the collagen I α 1 polypeptide. The antibody works well for immunohistochemistry on paraformaldehyde-fixed sections with a simple antigen-retrieval protocol (incubate slides for 20 minutes at 90° C in 10 mM sodium citRate (pH 6.0)/ 0.1 % Tween-20). Note that in paraffin sections of formaldehydefixed fibrotic mouse lung tissue, the antibody recognizes mature collagen I that has formed fibrils in the extracellular matrix.

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Affinity Purified
Buffer	PBS
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 or below. 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.

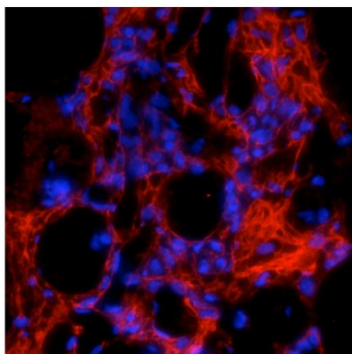
Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 1277 Human GeneID: 12842 Mouse Swiss-port # P02452 Human Swiss-port # P11087 Mouse
Gene Symbol	COL1A1
Gene Full Name	collagen, type I, alpha 1
Background	Collagen is an extracellular matrix protein that serves as a scaffold defining the shape and mechanical properties of many tissues and organs including skin, tendon, artery walls, fibrocartilage, bone and teeth. Type 1 collagen is the most abundant protein in mammals. Collagens are synthesized with N-terminal and C-terminal propeptides that are cleaved during maturation and secretion. After cleavage of the propeptides, the most N-terminal and C-terminal remaining sequences are known as telopeptides. Mutations in the collagen 1, alpha 1 gene (COL1A1) are known to cause osteogenesis imperfecta (aka brittle bone disease) (Byers 1989). Furthermore, mutations found in the first 90 residues of the helical region of alpha 1 collagen have been implicated in the prevention or delayed removal of the procollagen N-propeptide leading to a combined osteogenesis imperfecta and Ehlers-Danlos syndrome (EDS) phenotype (Cabral et al., 2005).
Highlight	Related products: Collagen I antibodies: Collagen I ELISA Kits: Collagen I Duos / Panels: Anti-Rabbit IgG secondary antibodies: Related news: New antibody panels for Myofibroblasts and CAFs
Research Area	Signaling Transduction antibody
Calculated Mw	139 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

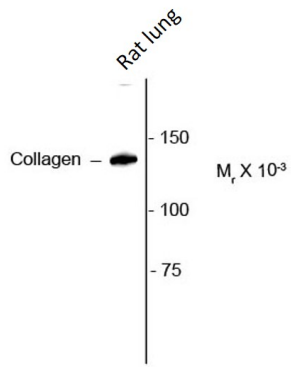
Telo



ARG52248 anti-Collagen I, alpha 1 telopeptide antibody IHC image

Immunohistochemistry: Formaldehyde-fixed fibrotic Mouse lung tissue. ARG52248 anti-Collagen I, alpha 1 telopeptide antibody recognizes mature collagen I (red) that has formed fibrils in the extracellular matrix.

ARG52248 anti-Collagen I, alpha 1 telopeptide antibody WB image



Western blot: Rat lung lysate showing specific immunolabeling of the ~140 kDa collagen protein stained with ARG52248 anti-Collagen I, alpha 1 telopeptide antibody.