Datasheet for ABIN6657341

anti-COL1A1 antibody (C-Term)

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Overview

Quantity:	100 µL
Target:	COL1A1
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This COL1A1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP)

Product Details

Purpose:	Collagen I alpha 1 telopeptide Antibody
Immunogen:	Anti-Collagen-1 alpha 1 telopeptide Antibody was produced in rabbit by repeated immunizations with a proprietary peptide immunogen corresponding to collagen-1 alpha 1 telopeptide (C-terminal region).
Isotype:	IgG
Cross-Reactivity (Details):	Anti-Collagen I alpha 1 telopeptide antibody is directed against the ~ 140 kDa telopeptide portion of the collagen I α1 polypeptide (C-terminus).
Purification:	Anti-Collagen I alpha 1 telopeptide antibody was affinity purified from monospecific antiserum by immunoaffinity purification.

Target Details

Target:	COL1A1
Alternative Name:	COL1A1 (COL1A1 Products)
Background:	Synonyms: Alpha-1 type I collagen, COLA1A1 Background: Collagen I alpha 1 telopeptide Antibody detects collagen I which 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). 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. Anti-Collagen I alpha 1 telopeptide Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research. Gene Name: COL1A1
Gene ID:	1277
NCBI Accession:	NP_000079
Pathways:	Sensory Perception of Sound, Autophagy, Growth Factor Binding

Application Details

Application Notes:	Immunoprecipitation_Dilution: 1:100 ELISA_Dilution: 1:10,000 Immunohistochemistry_Dilution: 1:100 Western_Blot_Dilution: 1:1,000
Comment:	Suggested Applications: ELISA, IF Anti-Collagen 1 alpha 1 telopeptide Antibody is tested for use in ELISA, Western Blotting and IHC. The antibody works well for IHC 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 formaldehyde-fixed fibrotic mouse lung tissue, the antibody recognizes mature collagen I that has formed fibrils in the extracellular matrix. For Western blot with appropriately prepared samples expect a band of approximately

Application Details

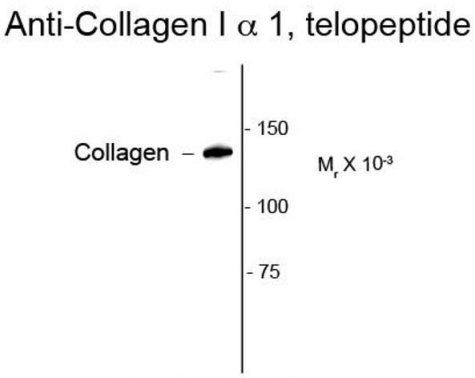
	140 kDa in size corresponding to the telopeptide portion (C-terminus) of the collagen I alpha I polypeptide. Specific conditions for reactivity should be optimized by the end user.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: None
Preservative:	Without preservative
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

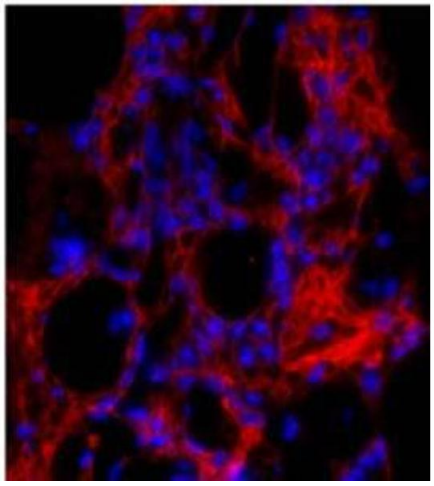
Product cited in:	Palano, Jansson, Backmark, Martinsson, Sabirsh, Hultenby, Åkerblad, Granberg, Jennbacken, Müllers, Hansson: "A high-content, in vitro cardiac fibrosis assay for high-throughput, phenotypic identification of compounds with anti-fibrotic activity." in: **Journal of molecular and cellular cardiology**, Vol. 142, pp. 105-117, (2021) (PubMed).



Western blot of rat lung lysate showing specific immunolabeling of the ~140k collagen protein.

Western Blotting

Image 1. Western Blot of Anti-Collagen 1, alpha 1 telopeptide (Rabbit) Antibody - 600-401-D20 Western Blot of Anti-Collagen 1, alpha 1 telopeptide (Rabbit) Antibody. Lane 1: rat lung lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: Collagen 1 antibody at 1:400 for overnight at 4°C. Secondary antibody: rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~ 140kDa/~140kDa for collagen protein. Other band(s): none.



Immunohistochemistry

Image 2. Anti-Collagen 1, alpha 1 telopeptide Antibody - Immunohistochemistry. Immunohistochemistry of Rabbit Anti-Collagen 1, alpha 1 telopeptide Antibody. Tissue: mouse lung tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: collagen I antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: collagen I is extracellular. Staining: mature collagen I (red) that has formed fibrils with hematoxylin purple nuclear counterstain.