10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Collagen 1, alpha 1 telopeptide Antibody

Our Anti-Collagen 1, alpha 1 telopeptide primary antibody from PhosphoSolutions is rabbit polyclonal
Catalog # AN1341

Product Information

Application	WB, IHC
Primary Accession	P02452
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	138911

Additional Information

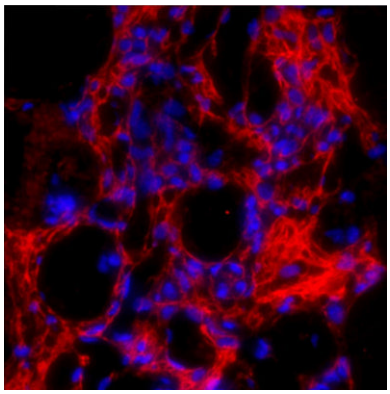
Gene ID	1277
Other Names	Alpha 1 type I collagen antibody, Alpha 2 type I collagen antibody, alpha 2 type I procollagen antibody, alpha 2(I) procollagen antibody, alpha 2(I)-collagen antibody, Alpha-1 type I collagen antibody, alpha1(I) procollagen antibody, CO1A1_HUMAN antibody, COL1A1 antibody, COL1A2 antibody, collagen alpha 1 chain type I antibody, Collagen alpha-1(I) chain antibody, collagen alpha-1(I) chain preproprotein antibody, Collagen I alpha 1 polypeptide antibody, Collagen I alpha 2 polypeptide antibody, collagen of skin tendon and bone, alpha-1 chain antibody, collagen of skin tendon and bone alpha-2 chain antibody, Collagen type I alpha 1 antibody, Collagen type I alpha 2 antibody, EDSC antibody, OI1 antibody, OI2 antibody, OI3 antibody, OI4 antibody, pro-alpha-1 collagen type 1 antibody, type I proalpha 1 antibody, type I procollagen alpha 1 chain antibody, Type I procollagen antibody
Target/Specificity	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).
Dilution	WB~~1:1000 IHC~~1:100~500
Format	Antigen Affinity Purified

Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Collagen 1, alpha 1 telopeptide Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

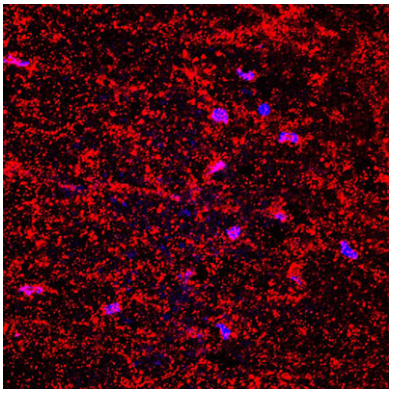
Background

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).

Images

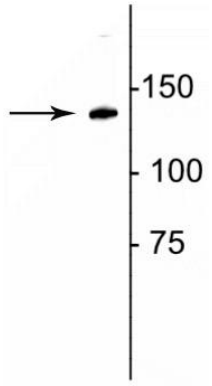


Immunostaining of formaldehyde-fixed fibrotic mouse lung tissue. The antibody recognizes mature collagen I (cat. AN1341, 1:100, red) that has formed fibrils in the extracellular matrix. The blue is staining nuclear DNA.



Immunofluorescence of a transversal section from mouse spinal cord labeling fibers of collagen (cat. : AN1341, red, 1:200) from the tissue scaffold. The blue is DAPI counterstaining nuclear DNA. Image kindly provided by Dr. Rodolfo Gatto and Dr. Gerardo Morfini, Department of Anatomy and Cell biology, University of Illinois at Chicago.

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



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.