

**COL1A2 Polyclonal Antibody**

<b>Catalog No :</b>	YT1018
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Collagen I
<b>Fields :</b>	>>PI3K-Akt signaling pathway;>>Focal adhesion;>>ECM-receptor interaction;>>Platelet activation;>>Relaxin signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Protein digestion and absorption;>>Amoebiasis;>>Human papillomavirus infection;>>Proteoglycans in cancer;>>Diabetic cardiomyopathy
<b>Gene Name :</b>	COL1A2
<b>Protein Name :</b>	Collagen alpha-2(I) chain
<b>Human Gene Id :</b>	1278
<b>Human Swiss Prot No :</b>	P08123
<b>Mouse Gene Id :</b>	12843
<b>Mouse Swiss Prot No :</b>	Q01149
<b>Rat Gene Id :</b>	84352
<b>Rat Swiss Prot No :</b>	P02466
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human Collagen I. AA range:1-50
<b>Specificity :</b>	COL1A2 Polyclonal Antibody detects endogenous levels of COL1A2 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG

**Dilution :** WB 1:500-2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.

---

**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

---

**Concentration :** 1 mg/ml

---

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

---

**Observed Band :** 200kD

---

**Cell Pathway :** Focal adhesion;ECM-receptor interaction;

---

**Background :** This gene encodes the pro-alpha2 chain of type I collagen whose triple helix comprises two alpha1 chains and one alpha2 chain. 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 VIIB, recessive Ehlers-Danlos syndrome Classical type, idiopathic osteoporosis, and atypical Marfan syndrome. Symptoms associated with mutations in this gene, however, tend to be less severe than mutations in the gene for the alpha1 chain of type I collagen (COL1A1) reflecting the different role of alpha2 chains in matrix integrity. Three transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish, Feb 2008],

---

**Function :** disease:A chromosomal rearrangement involving COL1A2 may be a cause of lipoblastomas, which are benign tumors resulting from transformation of adipocytes, usually diagnosed in children. Translocation t(7;8)(p22;q13) with PLAG1.,disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type I (OI-I) [MIM:166200]. OI-I is a dominantly inherited serious newborn disease characterized by bone fragility, normal stature, little or no deformity, blue sclerae and hearing loss in 50% of families. Dentinogenesis imperfecta is rare and may distinguish a subset of OI type I (formation of dentine).,disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type II (OI-II) [MIM:166210]; also known as osteogenesis imperfecta congenita (OIC) or lethal perinatal. OI-II is a serious newborn disease that diffusely affects bone. Infants are born with multiple fractures, which lead to shortening

---

**Subcellular Location :** Secreted, extracellular space, extracellular matrix .

---

**Expression :** Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite.

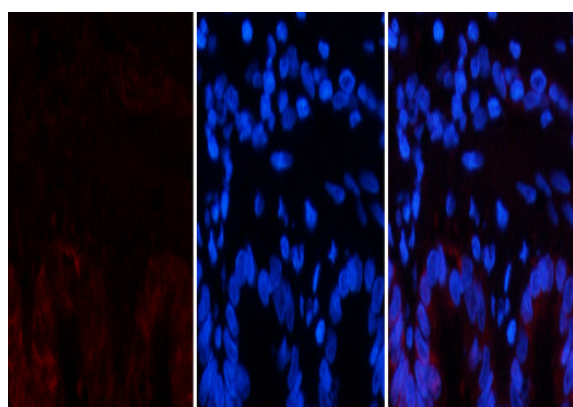
---

**Tag :** orthogonal

---

<b>Sort :</b>	1
<b>No3 :</b>	ab96723
<b>No4 :</b>	1
<b>Host :</b>	Rabbit
<b>Modifications :</b>	Unmodified

## Products Images

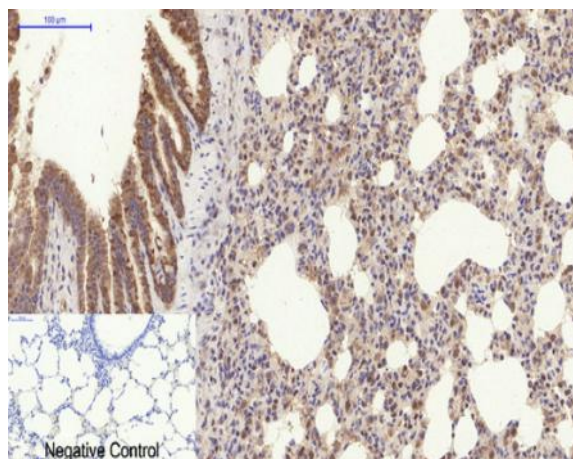


A

B

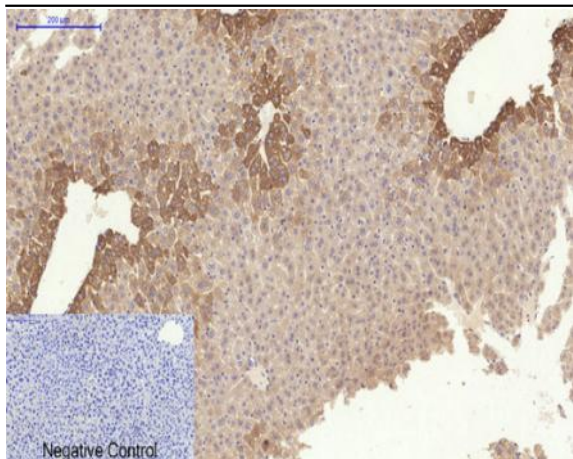
C

Immunofluorescence analysis of rat-lung tissue. 1, COL1A2 Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

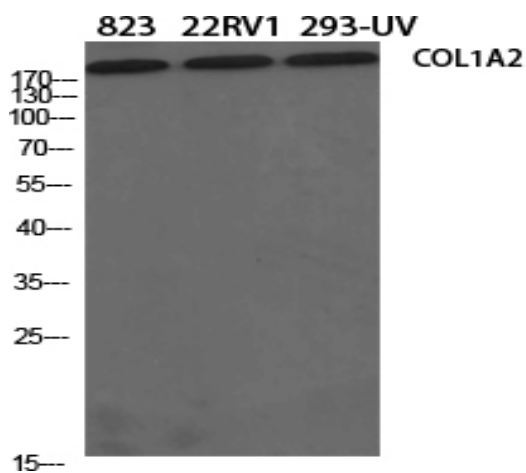


Negative Control

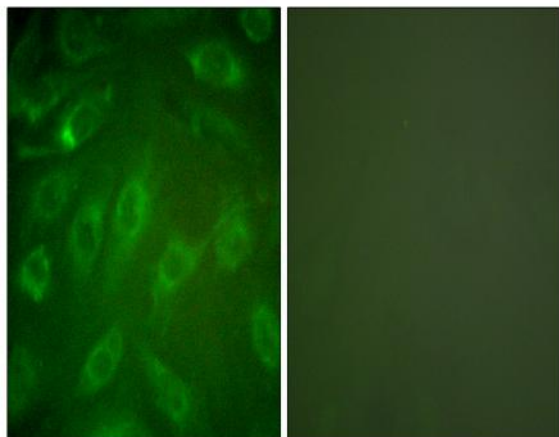
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1, COL1A2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20 min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30 min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1, COL1A2 Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of various cells using COL1A2 Polyclonal Antibody diluted at 1:500



Immunofluorescence analysis of NIH/3T3 cells, using Collagen I Antibody. The picture on the right is blocked with the synthesized peptide.