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Rabbit Anti-Collagen I antibody

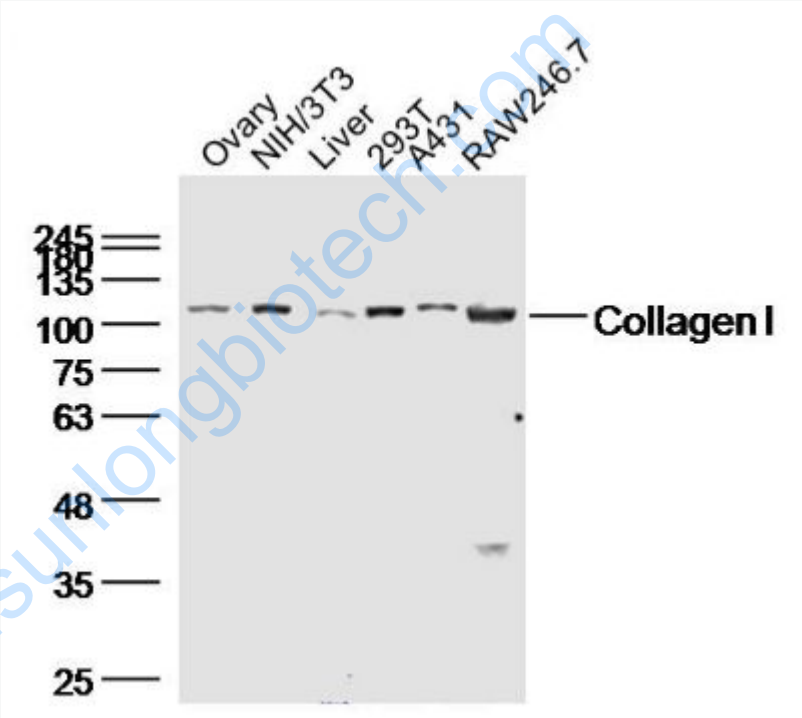
SL10423R

Product Name:	Collagen I
Chinese Name:	I型Collagen protein/Collagen protein1/1型Collagen protein/I型胶原a1抗体
Alias:	Collagen type I; Alpha 1 type I collagen; Alpha 2 type I collagen; COL1A1; COL1A2; Collagen I alpha 1 polypeptide; Collagen I alpha 2 polypeptide; Collagen Of Skin Tendon And Bone; Collagen Type 1; Collagen type I alpha 1; Collagen type I alpha 2; OI4; Osteogenesis Imperfecta Type IV; Pro alpha 1(I) collagen; Type I procollagen; CO1A1_HUMAN.
文献引用 PubMed :	**Specific References(6)**|SL10423R has been referenced in 6 publications. **[IF=2.47]**Luo, Yang, et al. "The inhibitory effect of salmon calcitonin on intervertebral disc degeneration in an ovariectomized rat model." European Spine Journal (2014): 1-11.**IHC-P;Rat**. PubMed:25304649 **[IF=1.89]**Hu, Jianguo, Biao Zeng, and Xingwei Jiang. "The expression of marker for endometrial stem cell and fibrosis was increased in intrauterine adhesious."International journal of clinical and experimental pathology 8.2 (2015): 1525.**IHC-P;Mouse**. PubMed:25973037 **[IF=1.27]**Zhou, Nan, et al. "Imperatorin derivative OW1 inhibits the upregulation of TGF-β and MMP-2 in renovascular hypertension-induced cardiac remodeling." Experimental and therapeutic medicine 11.5 (2016): 1748-1754.**WB;Human**. PubMed:27168797 **[IF=1.40]**Zhu, Yi, et al. "High Molecular Weight Hyaluronic Acid Inhibits Fibrosis of Endometrium." Medical Science Monitor 22 (2016): 3438-3445.**IHC-P;Mouse**. PubMed:27670361

	[IF=1.56]Jiang, Ke, et al. "Effect of transforming growth factor-β3 on the expression of Smad3 and Smad7 in tenocytes." Molecular medicine reports 13.4 (2016): 3567-3573.**Rabbit**. PubMed:26935007 [IF=2.83]Li, Yin, Lin Xiong, and Jianping Gong. "Lyn kinase enhanced hepatic fibrosis by modulating the activation of hepatic stellate cells." American Journal of Translational Research 9.6 (2017): 2865-2877.**IHC-F;Mouse**. PubMed:28670375
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	130kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Collagen I:1051-1150/1464
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Collagens are highly conserved throughout evolution and are characterised by an uninterrupted "Glycine X Y" triplet repeat that is a necessary part of the triple helical structure. Type I collagen (95 kDa) is found in bone, cornea, skin and tendon. Mutations in the encoding gene are associated with osteogenesis imperfecta, Ehlers Danlos syndrome, 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. **Function:** Type I collagen is a member of group I collagen (fibrillar forming collagen). **Subunit:** Trimers of one alpha 2(I) and two alpha 1(I) chains. Interacts with MRC2. Interacts with

	TRAM2. Subcellular Location : Secreted, extracellular space, extracellular matrix. **Subcellular Location:** Secreted, extracellular space, extracellular matrix. **Tissue Specificity:** Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite. **Post-translational modifications:** 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. **DISEASE:** Defects in COL1A1 are the cause of Caffey disease (CAFFD) [MIM:114000]; also known as infantile cortical hyperostosis. Caffey disease is characterized by an infantile episode of massive subperiosteal new bone formation that typically involves the diaphyses of the long bones, mandible, and clavicles. The involved bones may also appear inflamed, with painful swelling and systemic fever often accompanying the illness. The bone changes usually begin before 5 months of age and resolve before 2 years of age. Defects in COL1A1 are a cause of Ehlers-Danlos syndrome type 1 (EDS1) [MIM:130000]; also known as Ehlers-Danlos syndrome gravis. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS1 is the severe form of classic Ehlers-Danlos syndrome. Defects in COL1A1 are the cause of Ehlers-Danlos syndrome type 7A (EDS7A) [MIM:130060]; also known as autosomal dominant Ehlers-Danlos syndrome type VII. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS7A is marked by bilateral congenital hip dislocation, hyperlaxity of the joints, and recurrent partial dislocations. Defects in COL1A1 are a cause of osteogenesis imperfecta type 1 (OI1) [MIM:166200]. A dominantly inherited connective tissue disorder characterized by bone fragility and blue sclerae. Osteogenesis imperfecta type 1 is non-deforming with normal height or mild short stature, and no dentinogenesis imperfecta. Defects in COL1A1 are a cause of osteogenesis imperfecta type 2 (OI2) [MIM:166210]; also known as osteogenesis imperfecta congenita. A connective tissue disorder characterized by bone fragility, with many perinatal fractures, severe bowing of long bones, undermineralization, and death in the perinatal period due to respiratory insufficiency. Defects in COL1A1 are a cause of osteogenesis imperfecta type 3 (OI3) [MIM:259420]. A connective tissue disorder characterized by progressively deforming bones, very short

	stature, a triangular face, severe scoliosis, grayish sclera, and dentinogenesis imperfecta. Defects in COL1A1 are a cause of osteogenesis imperfecta type 4 (OI4) [MIM:166220]; also known as osteogenesis imperfecta with normal sclerae. A connective tissue disorder characterized by moderately short stature, mild to moderate scoliosis, grayish or white sclera and dentinogenesis imperfecta. Genetic variations in COL1A1 are a cause of susceptibility to osteoporosis (OSTEOP) [MIM:166710]; also known as involutional or senile osteoporosis or postmenopausal osteoporosis. Osteoporosis is characterized by reduced bone mass, disruption of bone microarchitecture without alteration in the composition of bone. Osteoporotic bones are more at risk of fracture. Note=A chromosomal aberration involving COL1A1 is found in dermatofibrosarcoma protuberans. Translocation t(17;22)(q22;q13) with PDGF. **Similarity:** Belongs to the fibrillar collagen family. Contains 1 fibrillar collagen NC1 domain. Contains 1 VWFC domain. **SWISS:** P02452 **Gene ID:** 1277 **Database links:** Entrez Gene: 1277Human trez Gene: 12842Mouse trez Gene: 100008952Rabbit trez Gene: 29393Rat nim: 120150Human issProt: P02453Cow issProt: O46392Dog issProt: P02452Human issProt: P11087Mouse issProt: P02454Rat igene: 172928Human

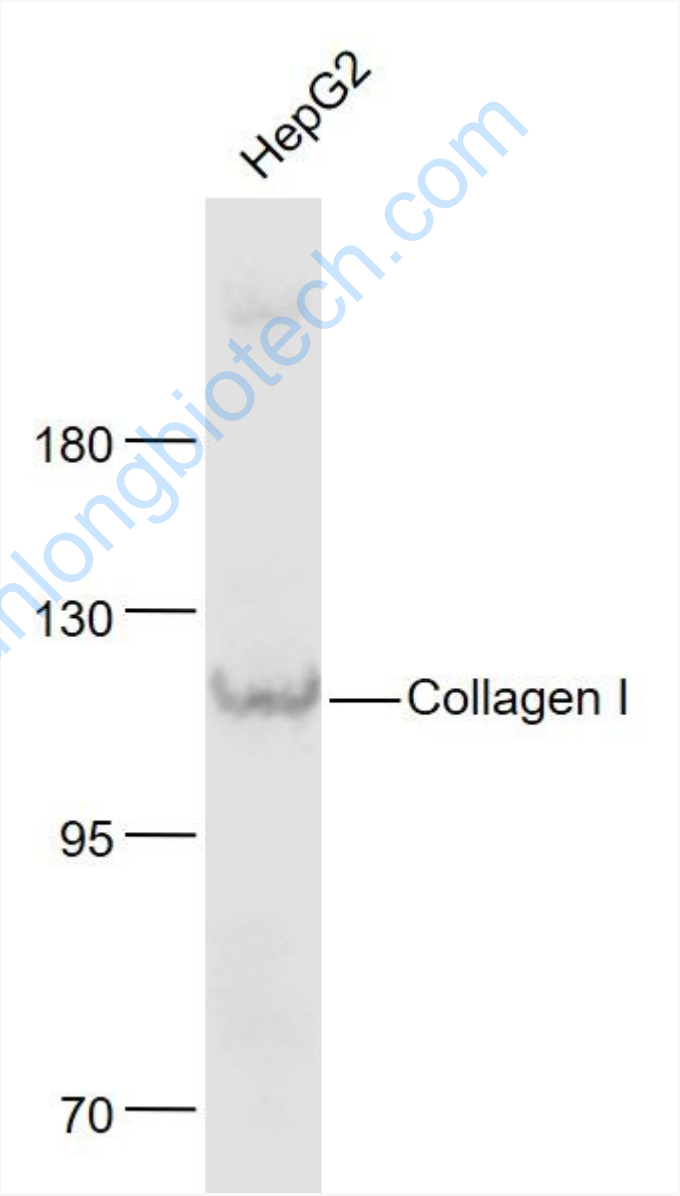
	igene: 277735Mouse igene: 107239Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: Ovary (Mouse) Lysate at 40 ug NIH/3T3(huamn) Cell Lysate at 40 ug Liver (Rat)Lysate at 40 ug 293T(huamn) Cell Lysate at 40 ug A431(huamn) Cell Lysate at 40 ug RAW264.7(huamn) Cell Lysate at 40 ug

Primary: Anti-Collagen I (SL10423R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 95 kD

Observed band size: 110 kD



Sample:

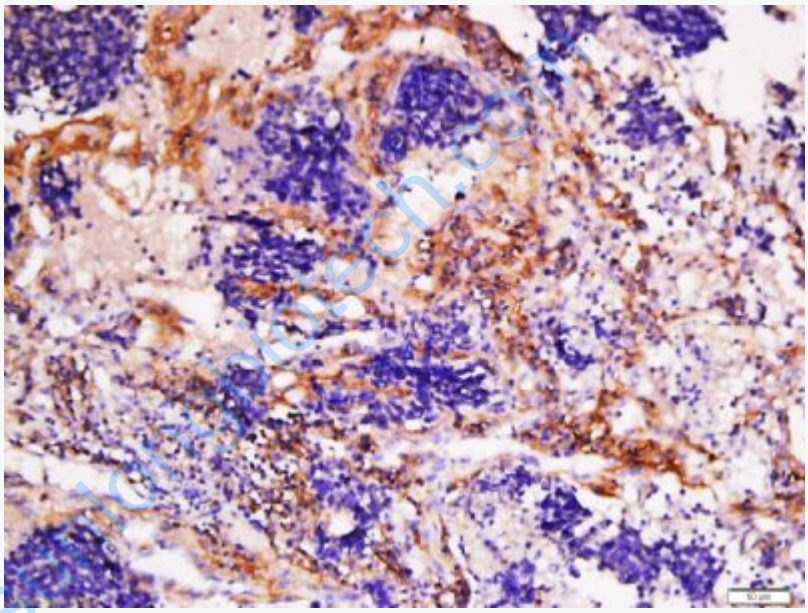
HepG2(Human) Cell Lysate at 30 ug

Primary: Anti- Collagen I (SL10423R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 130 kD

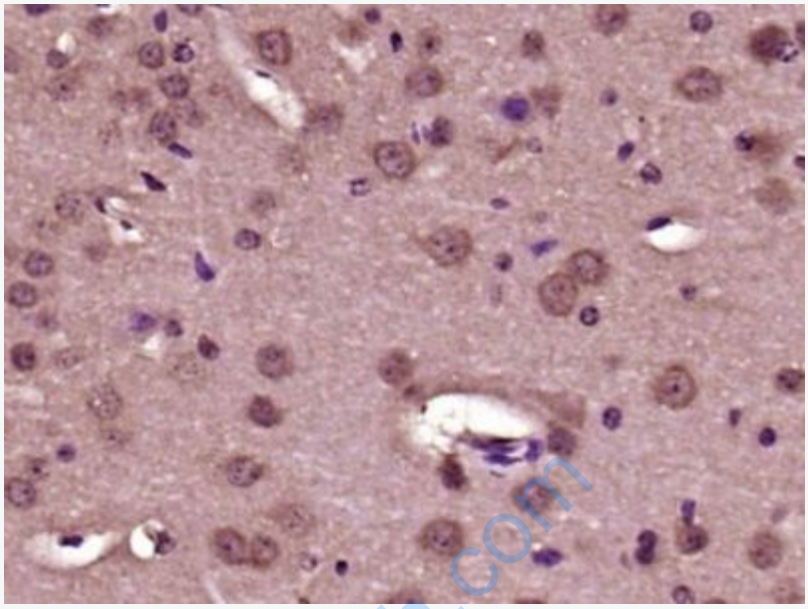
Observed band size: 110 kD



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Collagen I Polyclonal Antibody, Unconjugated(SL10423R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Collagen I) Polyclonal Antibody, Unconjugated (SL10423R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.