SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Collagen IV antibody

SL0806R

Product Name:	Collagen IV
Chinese Name:	IV型Collagen protein/4型Collagen protein/Collagen protein4抗体
Alias:	Arresten; Canstatin; COL4A1; HANAC; ICH; POREN1; Collagen Alpha 1(IV) Chain; Collagen IV Alpha 1 Polypeptide; Collagen Of Basement Membrane Alpha 1 Chain; Collagen Of Basement Membrane Alpha 2 Chain; Collagen Type IV Alpha 1; DKFZp686I14213; FLJ22259; collagen alpha-1(IV) chain preproprotein; collagen alpha-1(IV) chain preproprotein; Col4a1 protein; collagen of basement membrane, alpha-1 chain; collagen IV, alpha-1 polypeptide; collagen alpha-1(IV) chain; COL4A1 NC1 domain; Collagen Ⅳ; Collagen Type Ⅳ.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=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:	165kDa
Cellular localization:	The cell membraneExtracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Collagen alpha-1(IV) chain:1401-1500/1669
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:	This gene encodes the major type IV alpha collagen chain of basement membranes. Like the other members of the type IV collagen gene family, this gene is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter. [provided by RefSeq, Jul 2008] **Function:** Type IV collagen is the major structural component of glomerular basement membranes (GBM), forming a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen. Arresten, comprising the C-terminal NC1 domain, inhibits angiogenesis and tumor formation. The C-terminal half is found to possess the anti-angiogenic activity. Specifically inhibits endothelial cell proliferation, migration and tube formation. Inhibits expression of hypoxia-inducible factor 1alpha and ERK1/2 and p38 MAPK activation. Ligand for alpha1/beta1 integrin. **Subunit:** There are six type IV collagen isoforms, alpha 1(IV)-alpha 6(IV), each of which can form a triple helix structure with 2 other chains to generate type IV collagen network. **Subcellular Location:** Secreted, extracellular space, extracellular matrix, basement membrane. **Tissue Specificity:** Highly expressed in placenta. **Post-translational modifications:** Lysines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in all cases and bind carbohydrates. Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains. Type IV collagens contain numerous cysteine residues which are involved in inter- and intramolecular disulfide bonding. 12 of these, located in the NC1 domain, are conserved in all known type IV collagens. The trimeric structure of the NC1 domains is stabilized by covalent bonds between Lys and Met residues. Proteolytic processing produces the C-terminal NC1 peptide, arresten. **DISEASE:** Defects in COL4A1 are a cause of brain small vessel disease with hemorrhage (BSVDH) [MIM:607595]. Brain small vessel diseases underlie 20 to 30 percent of ischemic strokes and a larger proportion of intracerebral hemorrhages. Inheritance is autosomal dominant. Defects in COL4A1 are the cause of hereditary angiopathy with nephropathy aneurysms and muscle cramps (HANAC) [MIM:611773]. The clinical renal manifestations include hematuria and bilateral large cysts. Histologic analysis revealed complex basement membrane defects in kidney and skin. The systemic angiopathy appears to affect both

small vessels and large arteries.
Defects in COL4A1 are a cause of familial porencephaly (POREN1) [MIM:175780]. Porencephaly is a term used for any cavitation or cerebrospinal fluid-filled cyst in the brain. Porencephaly type 1 is usually unilateral and results from focal destructive lesions such as fetal vascular occlusion or birth trauma. Type 2, or schizencephalic porencephaly, is usually symmetric and represents a primary defect or arrest in the development of the cerebral ventricles.

Similarity:
Contains 1 FAD-binding FR-type domain.
Contains 1 ferric oxidoreductase domain.

SWISS:
P02463

Gene ID:
1282

Database links:

Entrez Gene: 1282Human

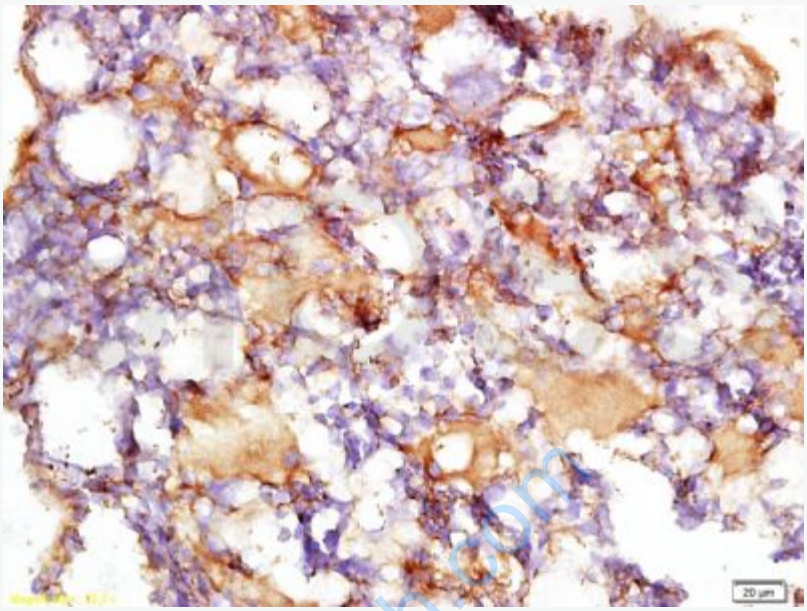
Omim: 120070Human

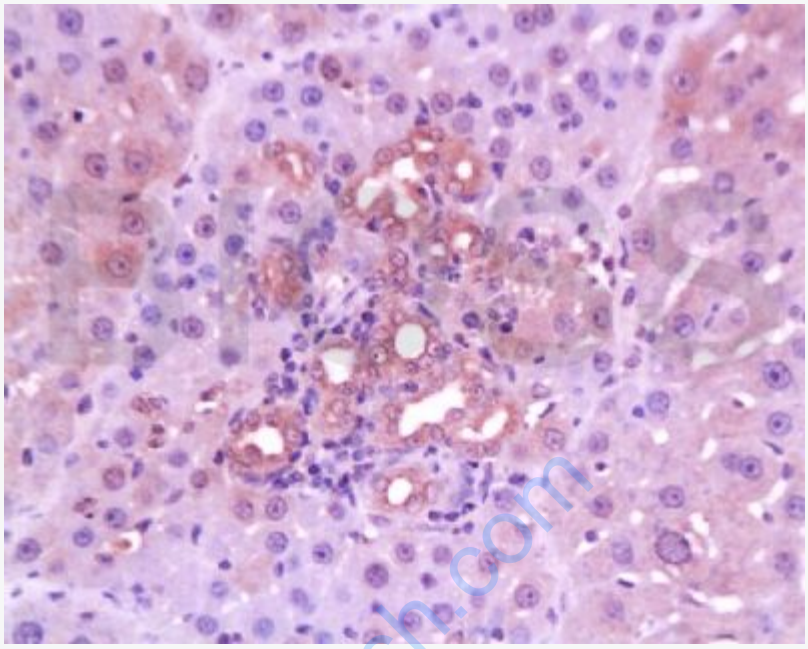
SwissProt: P02462Human

Unigene: 17441Human

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

IV型胶原为基底膜的主要成分，主要用于各种良恶性组织(乳腺癌、胃肠道癌等)中基底膜分布情况的研究.IV型胶原是构成基底膜的主要成分。该抗体可特异性识别人的IV型胶原，与人类皮肤、肾、肌肉、脾、淋巴结、胎盘和肺的基底膜呈阳性反应，主要用于各种组织癌症中基底膜情况的研究。

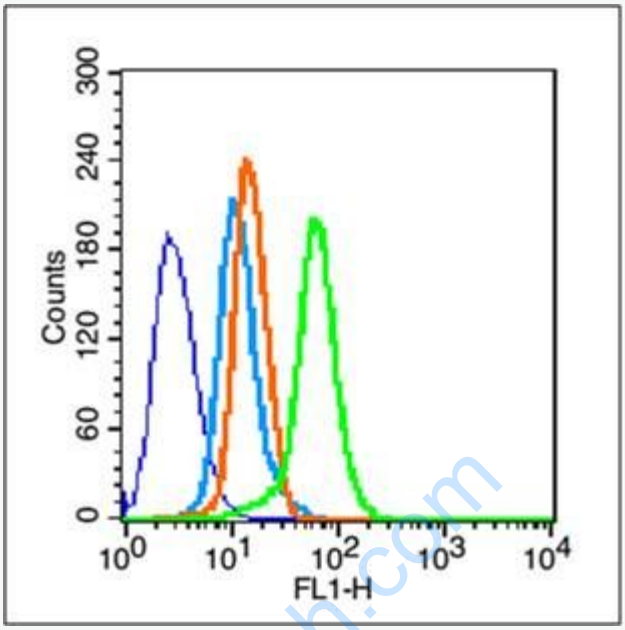
Picture:	 Tissue/cell: rabbit cartilage tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Collagen IV Polyclonal Antibody, Unconjugated(SL0806R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat liver tissue; 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 IV Polyclonal Antibody, Unconjugated(SL0806R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): Hela (blue).

Primary Antibody (green line): Rabbit Anti-Collagen IV antibody (SL0806R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

Dilution: 1μg /test.

Protocol

The cells were fixed with 70% methanol (Overnight at -20°C) and then permeabilized with ice-cold 90% methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.