SunLong Biotech Co.,LTD
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Rabbit Anti-Laminin subunit beta-1 antibody

SL0821R

Product Name	Laminin subunit beta-1
Chinese Name	层粘连蛋白 β1 抗体
Alias	LAMB1; Laminin B1 chain; Laminin subunit beta 1; Laminin-1 subunit beta; Laminin-10 subunit beta; Laminin-12 subunit beta; Laminin-2 subunit beta; Laminin-6 subunit beta; Laminin-8 subunit beta;LAMB1_HUMAN.
Research Area	Tumour Cell biology immunology Neurobiology Signal transduction Apoptosis
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Cow,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	198kDa
Cellular localization	The cell membrane Extracellular matrix Secretory protein
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Laminin subunit beta-1: 901-1000/1786
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins are composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively) and they form a cruciform structure consisting of 3 short arms, each formed by a different chain, and a long arm composed of all 3 chains. Each laminin chain is a multidomain protein encoded by a distinct gene. Several isoforms of each chain have been described. Different alpha, beta and gamma chain isomers combine to give rise to different heterotrimeric laminin isoforms which are designated by Arabic numerals in the order of their discovery, i.e. alpha1beta1gamma1 heterotrimer is laminin 1. The biological functions of the different chains and trimer molecules are largely unknown, but some of the chains have been shown to differ with respect to their tissue distribution, presumably reflecting diverse functions in vivo. This gene encodes the beta chain isoform laminin, beta 1. The beta 1 chain has 7 structurally distinct domains which it shares with other beta chain isomers. The C-terminal helical region containing domains I and II are separated by domain alpha, domains III and V contain several EGF-like repeats, and domains IV and VI have a globular conformation. Laminin, beta 1 is expressed in most tissues that produce basement membranes, and is one of the 3 chains constituting laminin 1, the first laminin isolated from Engelbreth-Holm-Swarm (EHS) tumor. A sequence in the beta 1 chain that is involved in cell attachment, chemotaxis, and binding to the laminin receptor was identified and shown to have the capacity to inhibit metastasis. [provided by RefSeq, Aug 2011]

Product Detail

Function:
Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components. Involved in the organization of the laminar architecture of cerebral cortex. It is probably required for the integrity of the basement membrane/glia limitans that serves as an anchor point for the endfeet of radial glial cells and as a physical barrier to migrating neurons. Radial glial cells play a central role in cerebral cortical development, where they act both as the proliferative unit of the cerebral cortex and a scaffold for neurons migrating toward the pial surface.

Subcellular Location:
Secreted > extracellular space > extracellular matrix > basement membrane.

Tissue Specificity:
Broadly expressed in: skin, heart, lung, and the reproductive tracts.

SWISS:
P07942

Gene ID:

3912

Database links:

Entrez Gene: 10319 Human

Entrez Gene: 284217 Human

Entrez Gene: 3908 Human

Entrez Gene: 3912 Human

Entrez Gene: 3913 Human

Entrez Gene: 3915 Human

Entrez Gene: 3918 Human

Entrez Gene: 16772 Mouse

Entrez Gene: 316758 Rat

Omim: 150320 Human

SwissProt: P07942 Human

SwissProt: P24043 Human

SwissProt: P25391 Human

SwissProt: P55268 Human

SwissProt: Q9Y6N6 Human

SwissProt: P19137 Mouse

SwissProt: Q9R0B6 Mouse

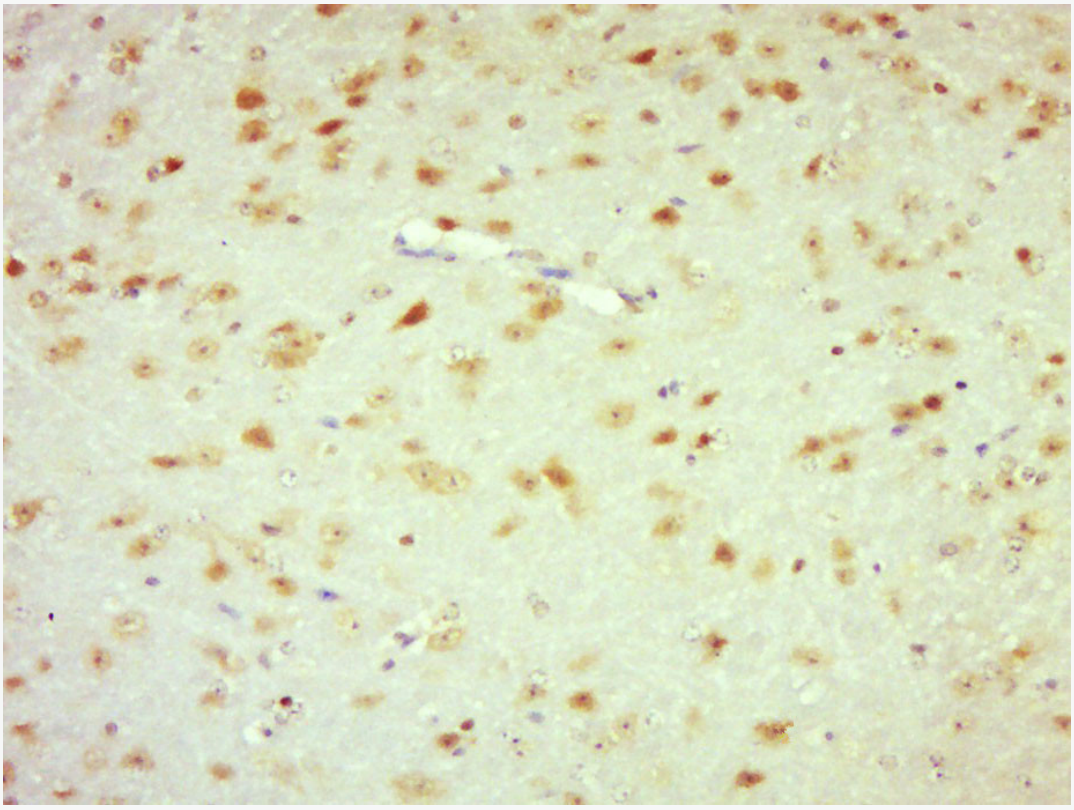
Unigene: 201805 Human

Unigene: 270364 Human

Unigene: 302362 Mouse

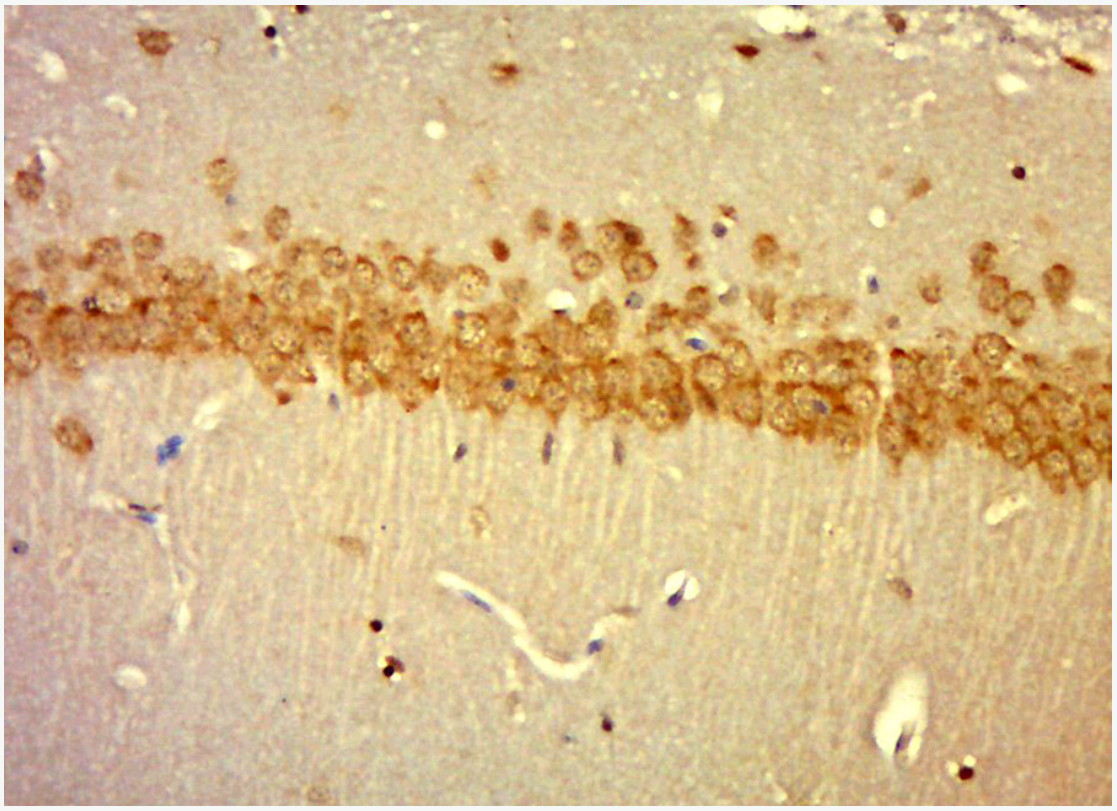
层粘连蛋白主要存在于基膜(basal lamina)结构中，是基膜所特有的非胶原 glycoprotein。层粘连蛋白在细胞发育过程中刺激细胞粘着、细胞运动。LN 能够刺激胚胎中神经轴的生长,并促进成年动物的神经损伤后重生长和再生。如同纤粘连蛋白,细胞外的 LN 能够影响细胞的生长、迁移和分化。LN 在原生殖细胞的迁移中起关键作用。
层粘连蛋白是细胞外基底膜的主要组成部分，分布于基底膜和 Extracellular matrix 内、成纤维细胞、endothelial cells 和平滑肌细胞分泌层粘连蛋白。Tumour 的浸润和转移与其遭到破坏相关。该抗体可用于标记基底膜，有助于观察 Tumour 周围基底膜的分布及其改变，间接提示该 Tumour 的分化程度和浸润情况。

Product Picture



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 (laminin) Polyclonal Antibody, Unconjugated (SL0821R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for

20 minutes and DAB 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 (laminin) Polyclonal Antibody, Unconjugated (SL0821R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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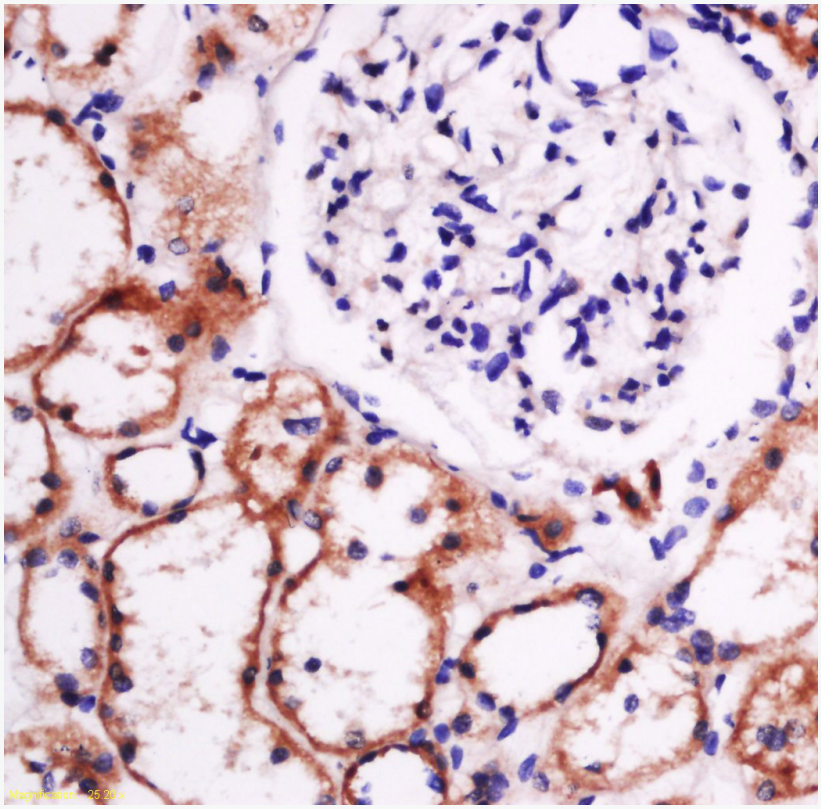

Paraformaldehyde-fixed, paraffin embedded (human kidney tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (laminin) Polyclonal Antibody, Unconjugated (SL0821R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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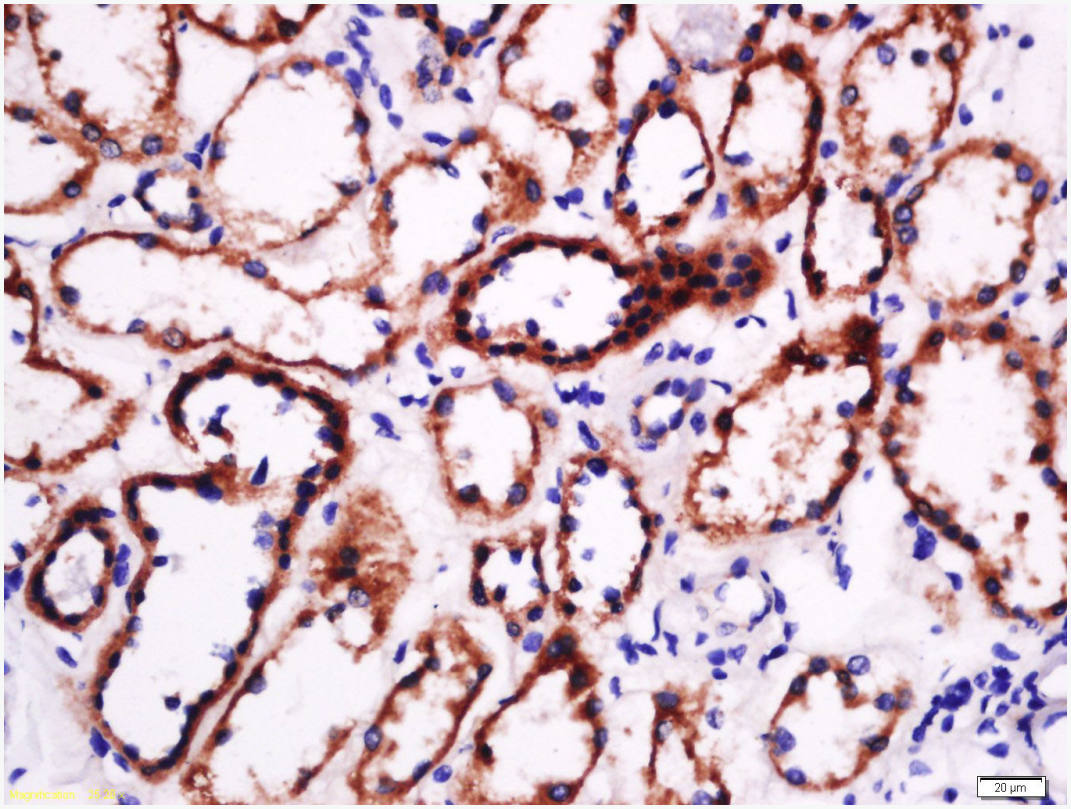

Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-laminin Polyclonal Antibody, Unconjugated(SL0821R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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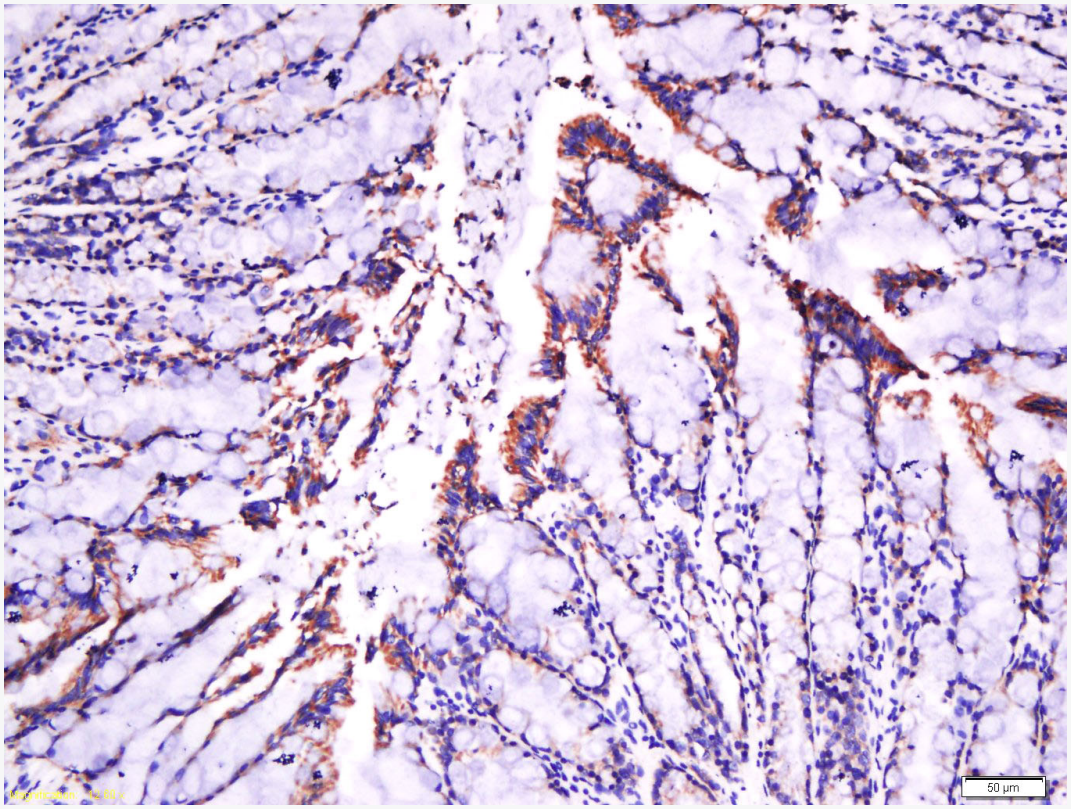

Tissue/cell: rat intestine tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

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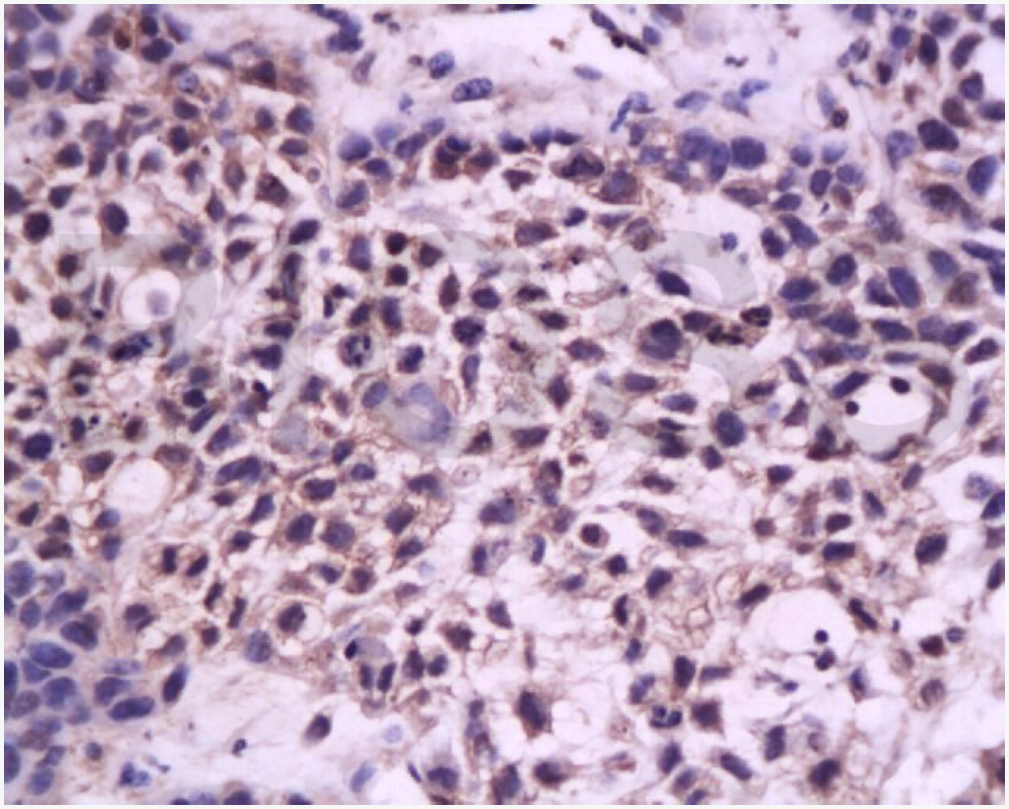

Tissue/cell: Transplantation tumor of In nude mice; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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-laminin Polyclonal Antibody, Unconjugated(SL0821R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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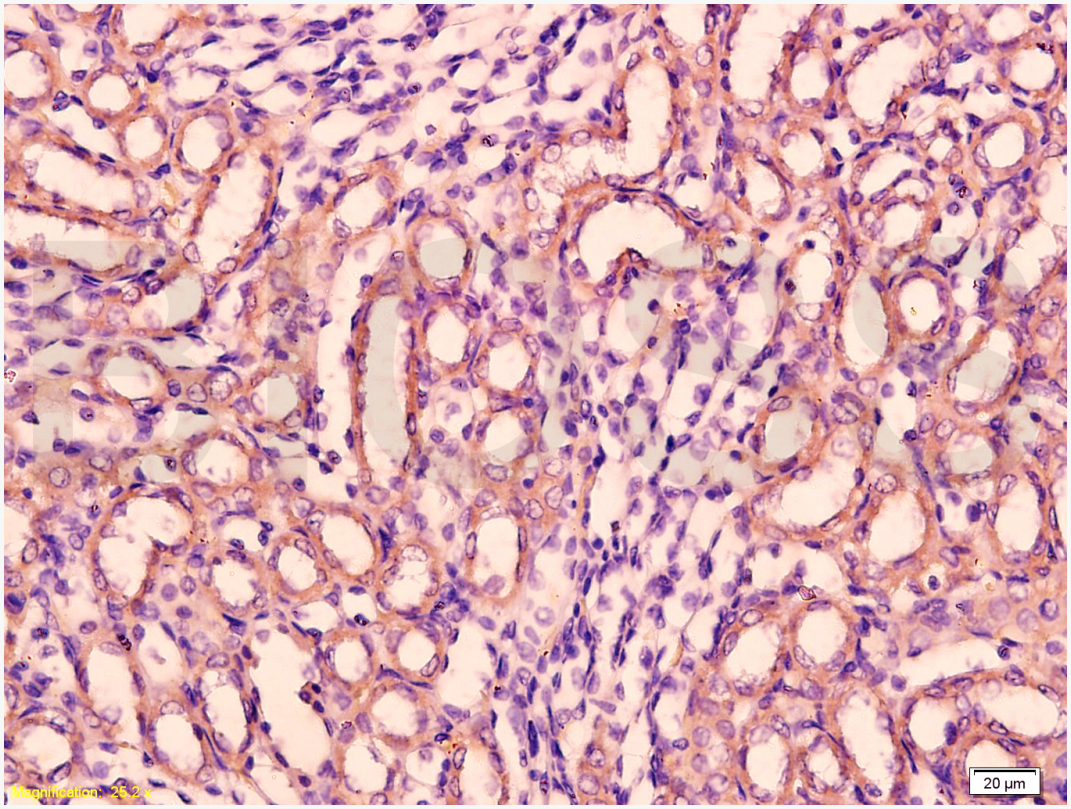

Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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-laminin Polyclonal Antibody, Unconjugated(SL0821R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining