Collagen IV α1 (Cleaved-Gly173) rabbit pAb

Catalog No : YC0138

Reactivity : Human;Mouse

Applications : WB;ELISA

Target : Collagen IV

Fields : >>PI3K-Akt signaling pathway;>>Focal adhesion;>>ECM-receptor interaction;>>Relaxin signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Protein digestion and absorption;>>Amoebiasis;>>Human papillomavirus infection;>>Pathways in cancer;>>Small cell lung cancer

Gene Name : COL4A1

Protein Name : Collagen IV α1 (Cleaved-Gly173)

Human Gene Id : 1282

Human Swiss Prot No : P02462

Mouse Gene Id : 12826

Mouse Swiss Prot No : P02463

Immunogen : Synthesized peptide derived from human Collagen IV α1 (Cleaved-Gly173)

Specificity : This antibody detects endogenous levels of Human,Mouse Collagen IV α1 (Cleaved-Gly173, protein was cleaved amino acid sequence between 172-173)

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source : Polyclonal, Rabbit,IgG

Dilution : WB 1:1000-2000 ELISA 1:5000-20000

Purification : The antibody was affinity-purified from rabbit serum by affinity-chromatography

using specific immunogen.

Concentration :   1 mg/ml

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

Observed Band :   18 185kD

Background :   disease:Defects in COL4A1 are a cause of brain small vessel disease with hemorrhage [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.,disease:Defects in COL4A1 are a cause of porencephaly type 1 [MIM:175780]; also known as encephaloclastic porencephaly. 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. Inheritance is autosomal dominant.,disease: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.,domain:Alpha chains of type IV collagen have a non-collagenous domain (NC1) at their C-terminus, frequent interruptions of the G-X-Y repeats in the long central triple-helical domain (which may cause flexibility in the triple helix), and a short N-terminal triple-helical 7S domain.,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. Potently inhibits endothelial cell proliferation and angiogenesis. Inhibits angiogenesis potentially via mechanisms involving cell surface proteoglycans and the alpha and beta integrins of endothelial cells.,PTM:Lysines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in all cases and bind carbohydrates.,PTM:Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.,PTM:The trimeric structure of the NC1 domains may be stabilized by covalent bonds between Lys and Met residues.,PTM: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.,similarity:Belongs to the type IV collagen family.,similarity:Contains 1 collagen IV NC1 (C-terminal non-collagenous) domain.,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.,tissue specificity:Highly expressed in placenta.,

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

Expression :   Highly expressed in placenta.

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