abcam

Product datasheet

Anti-Collagen IV antibody [COL-94] ab6311

10 Abreviews 42 References 2 图像

概述

产品名称	Anti-Collagen Ⅳ抗体[COL-94]
描述	**小鼠单克隆抗体**[COL-94] to Collagen Ⅳ
宿主	Mouse
经测试应用	**适用于:** IHC-P
种属反应性	**与反应:** Human **预测可用于:** Non human primates **不与反应:** Rat, Sheep, Goat, Chicken, Cat
免疫原	Full length native protein (purified) corresponding to Human Collagen Ⅳ. Database link: **P02462**
表位	Recognises an epitope located on the alpha 1 and/or alpha 2 chains of human collage type Ⅳ.
阳性对照	Natural Human Collagen Ⅳ protein (**ab7536**) can be used as a positive control in WB. Human skin tissue.
常规说明	This product was changed from ascites to tissue culture supernatant on 10th July 2019. Lot numbers higher than GR3230927 are from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. Collagen Ⅳ is a major constituent of the basement membranes along with laminins and enactins. It is composed of alpha 1 Ⅳ chain and alpha 2 Ⅳ chain in 2:1 ratio . It can form insoluble fibers with high tensile strength. Antibody to collagen Ⅳ is useful in detecting the loss of parts of basement membrane in carcinomas. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

	term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.1% Sodium azide Constituent: PBS
纯度	Proprietary Purification
纯化说明	Purified from hybridoma cell culture
克隆	单克隆
克隆编号	COL-94
同种型	IgG1

应用

The Abpromise guarantee Abpromise™承诺保证使用ab6311于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

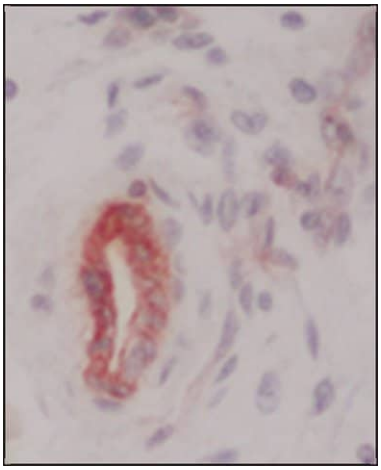
应用	Ab评论	说明
IHC-P	★★★★★ (5)	Use a concentration of 4 - 8 µg/ml. The antibody was developed using biotin/ExtrAvidin®-Peroxidase.

靶标

功能	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.
组织特异性	Highly expressed in placenta.
疾病相关	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 porencephaly familial (PCEPH) [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.
序列相似性	Belongs to the type IV collagen family. Contains 1 collagen IV NC1 (C-terminal non-collagenous) domain.
结构域	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.
翻译后修饰	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.
细胞定位	Secreted > extracellular space > extracellular matrix > basement membrane.

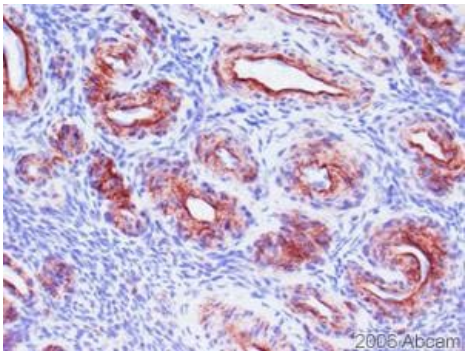
图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen IV antibody [COL-94] (ab6311)

Immunohistochemical analysis of paraffin-embedded human tongue tissue staining Collagen IV with ab6311 at 8µg/ml. The antibody was developed using biotin/ExtrAvidin®-Peroxidase.

This image was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen IV antibody [COL-94] (ab6311)

This image is courtesy of an abreview submitted by Birgitta Weijdegard, Sahlgrenska Cancer Center.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovary tissue sections labeling Collagen IV with unpurified ab6311 at 1/400 dilution. Tissue was blocked with 1.4% serum for 30 minutes. Heat mediated antigen retrieval was performed. An undiluted monoclonal alkaline phosphatase conjugated secondary antibody was used.
Blood vessels in whole ovarian section. Clear staining is seen in the vessel walls.

This image was generated using the ascites version of the product.

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