


### Anti-Collagen IV antibody [COL-94] ab6311

★★★★★ 10 Abreviews 42 References 画像数 2

#### 製品の概要

製品名	Anti-Collagen IV antibody [COL-94]
製品の詳細	Mouse monoclonal [COL-94] to Collagen IV
由来種	Mouse
アプリケーション	<b>適用あり:</b> IHC-P
種交差性	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Non human primates  <b>非交差種:</b> Rat, Sheep, Goat, Chicken, Cat
免疫原	Full length native protein (purified) corresponding to Human Collagen IV. Database link: <a href="#">P02462</a>
エピトープ	Recognises an epitope located on the alpha 1 and/or alpha 2 chains of human collage type IV.
ポジティブ・コントロール	Natural Human Collagen IV protein ( <a href="#">ab7536</a> ) can be used as a positive control in WB. Human skin tissue.
特記事項	<p>This product was changed from ascites to tissue culture supernatant on 10<sup>th</sup> 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.</p> <p>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.</p> <p>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.</p> <p>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&amp;As</p>

#### 製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.40 Preservative: 0.1% Sodium azide Constituent: PBS
精製度	Proprietary Purification
特記事項 (精製)	Purified from hybridoma cell culture
ポリ/モノ	モノクローナル
クローン名	COL-94
アイソタイプ	IgG1

## アプリケーション

**The Abpromise guarantee**      **Abpromise保証は、次のテスト済みアプリケーションにおけるab6311の使用に適用されます**  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
IHC-P	★★★★★ (5)	Use a concentration of 4 - 8 µg/ml. The antibody was developed using biotin/ExtrAvidin®-Peroxidase.

## ターゲット情報

機能	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.
組織特異性	Highly expressed in placenta.
関連疾患	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.
配列類似性	Belongs to the type IV collagen family. Contains 1 collagen IV NC1 (C-terminal non-collagenous) domain.
ドメイン	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

## 翻訳後修飾

cause flexibility in the triple helix), and a short N-terminal triple-helical 7S domain.

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.

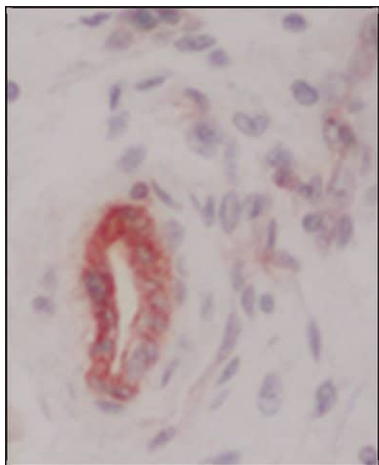
The trimeric structure of the NC1 domains is stabilized by covalent bonds between Lys and Met residues.

Proteolytic processing produces the C-terminal NC1 peptide, arresten.

## 細胞内局在

Secreted > extracellular space > extracellular matrix > basement membrane.

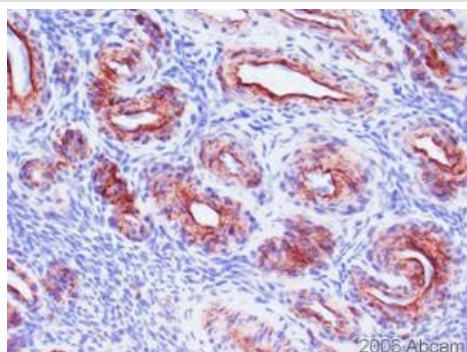
## 画像



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



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.

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.

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