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Product datasheet

Native Human Collagen IV protein ab7536

1 Abreviews 11 References

描述

产品名称	Native人Collagen Ⅳ蛋白
表达系统	Native
Accession	P02462
蛋白长度	Full length protein
无动物成分	No
性质	Native
种属	Human
预测分子量	161 kDa
额外的序列信息	Prepared from human placenta and is chromatographically and immunologically pure.

技术指标

Our **Abpromise guarantee** covers the use of **ab7536** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE Western blot Immunoprecipitation ELISA Blocking
形式	Liquid
补充说明	This product is free from other collagens, human serum proteins and non-collagen extracellular matrix proteins. This product reacts with anti-Collagen Type Ⅳ. Reaction with anti-Collagen Ⅰ, Ⅱ, Ⅲ, Ⅴ or Ⅵ is negligible (typically less than 1% cross reactivity was detected by ELISA).

制备和贮存

稳定性和存储	Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Store undiluted. Preservative: 0.01% Sodium azide Constituent: 3% Acetic acid buffer

常规信息

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.

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If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.cn/abpromise** or contact our technical team.

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