Product Name: COL18A1 Rabbit Polyclonal Antibody
Catalog #: APRab09175

Summary

Production Name	COL18A1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	COL18A1
Alternative Names	COL18A1; Collagen alpha-1(XVIII) chain
Gene ID	80781.0
SwissProt ID	P39060.The antiserum was produced against synthesized peptide derived from human Collagen XVIII alpha1. AA range:801-850

Application

Dilution Ratio	IHC-P 1:100-1:300, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:5000.Not yet tested in other applications.
Molecular Weight	

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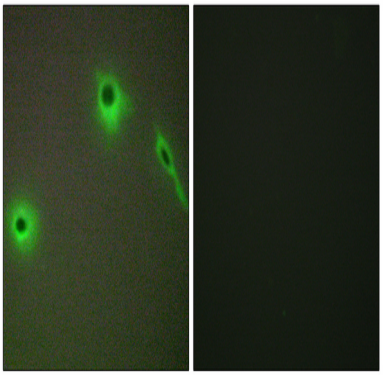
Background

This gene encodes the alpha chain of type XVIII collagen. This collagen is one of the multiplexins, extracellular matrix proteins that contain multiple triple-helix domains (collagenous domains) interrupted by non-collagenous domains. A long isoform of the protein has an N-terminal domain that is homologous to the extracellular part of frizzled receptors. Proteolytic processing at several endogenous cleavage sites in the C-terminal domain results in production of endostatin, a potent antiangiogenic protein that is able to inhibit angiogenesis and tumor growth. Mutations in this gene are associated with Knobloch syndrome. The main features of this syndrome involve retinal abnormalities, so type XVIII collagen may play an important role in retinal structure and in neural tube closure. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014],disease:Defects in COL18A1 are a cause of Knobloch syndrome (KNO) [MIM:267750]. KNO is an autosomal recessive disorder defined by the occurrence of high myopia, vitreoretinal degeneration with retinal detachment, macular abnormalities and occipital encephalocele.,function:COLA18A probably plays a major role in determining the retinal structure as well as in the closure of the neural tube.,function:Endostatin potently inhibits endothelial cell proliferation and angiogenesis. May inhibit angiogenesis by binding to the heparan sulfate proteoglycans involved in growth factor signaling.,polymorphism:There is an association between a polymorphism in position 1675 and prostate cancer. Heterozygous Asn-1675 individuals have a 2.5 times increased chance of developing prostate cancer as compared with homozygous Asp-1675 individuals.,PTM:Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.,similarity:Belongs to the multiplexin collagen family.,similarity:Contains 1 FZ (frizzled) domain.,similarity:Contains 1 TSP N-terminal (TSPN) domain.,tissue specificity:Present in multiple organs with highest levels in liver, lung and kidney.,

Research Area

Image Data



Immunofluorescence analysis of A549 cells, using Collagen XVIII alpha1 Antibody. The picture on the right is blocked with the synthesized peptide.

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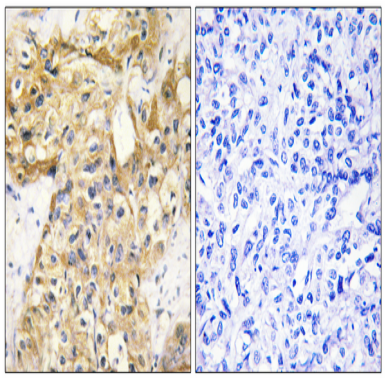
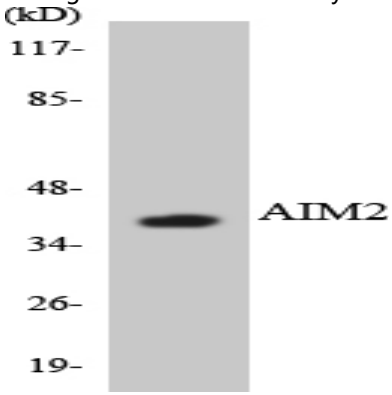


Immunohistochemistry analysis of paraffin-embedded human liver carcinoma tissue, using Collagen XVIII alpha1 Antibody.

The picture on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HeLa cells using AIM2 antibody.

Note

For research use only.