

Rabbit Collagen IV Polyclonal Antibody | anti-COL4A1 antibody

Collagen IV Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321071	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

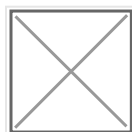
PRODUCT SYNONYMS

Collagen IV; Polyclonal Antibody; Collagen IV Antibody; Arresten; BSVD; CO4A1_HUMAN; COL4A1; collagen alpha-1(IV) chain; collagen type IV alpha 1 chain; RATOR; anti-COL4A1 antibody

PRODUCT SPECIFICATIONS

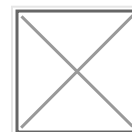
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Collagen IV antibody detects endogenous levels of Collagen IV
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	519
Applicable Applications for anti-COL4A1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Collagen IV
Subcellular Location	Secreted > Extracellular Space > Extracellular Matrix > Basement Membrane.
Tissue Specificity	Highly expressed in placenta.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (100%), Horse (88%), Sheep (88%), Rabbit (100%), Dog (100%), Chicken (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA321071 at 1/100 staining Human Melanoma tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)

AAA321071 at 1/100 staining human colon cancer tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours



WB (Western Blot)

Western blot analysis on HeLa cell lysate using Collagen IV Antibody. The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)

Western blot analysis of extracts from 293 and Hela, using Collagen IV Antibody.



IF (Immunofluorescence)

AAA321071 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-COL4A1 antibody

Description: COL4A1 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. Belongs to the type IV collagen family. 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. 2 isoforms of the human protein are produced by alternative splicing. Note: This description may include information from UniProtKB.

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.

Subunit Structure: 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.

Post-translational Modifications: Lysines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated. The modified lysines can be O-glycosylated. Contains 4-hydroxyproline (Probable). Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains (By similarity). Contains 3-hydroxyproline. This modification occurs on the first proline residue in the sequence motif Gly-Pro-Hyp, where Hyp is 4-hydroxyproline. Type IV collagens contain numerous cysteine residues which are involved in inter- and intramolecular disulfide bonding (PubMed:2844531). 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 (sulfilimine cross-links) between Lys and Met residues (PubMed:12011424). These cross-links are important for the mechanical stability of the basement membrane (By similarity). Proteolytic processing produces the C-terminal NC1 peptide, arresten.

Similarity: 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. Belongs to the type IV collagen family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	734520332
NCBI GeneID	1282
NCBI Accession #	NP_001290039.1
NCBI GenBank Nucleotide #	NM_001303110.1
UniProt Accession #	P02462; Q1P9S9; Q5VWF6; Q86X41; Q8NF88; Q9NYC5; A7E2W4; B1AM70; F5H5K0
Molecular Weight	Observed: 160 kDa Predicted: 161 kDa
NCBI Official Full Name	collagen alpha-1(IV) chain isoform 2
NCBI Official Synonym Full Names	collagen type IV alpha 1 chain
NCBI Official Symbol	COL4A1

NCBI Official Synonym Symbols	BSVD; RATOR
NCBI Protein Information	collagen alpha-1(IV) chain
UniProt Protein Name	Collagen alpha-1(IV) chain
UniProt Gene Name	COL4A1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/collagen-iv-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321071>