

## ARG24015 anti-Collagen IV antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes Collagen IV
Tested Reactivity	Rat
Tested Application	ELISA, ICC/IF, IHC-P
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Collagen IV
Species	Rat
Immunogen	Type IV collagen extracted from Rat tumor tissues.
Conjugation	Un-conjugated
Alternate Names	BSVD; RATOR; Collagen alpha-1(IV) chain

### Application Instructions

Application table	Application	Dilution
	ELISA	1:2000
	ICC/IF	1:40
	IHC-P	1:500
Application Note	IHC-P: Antigen Retrieval: treat sections with 0.5% hyaluronidase at RT for 1hr before staining. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### Properties

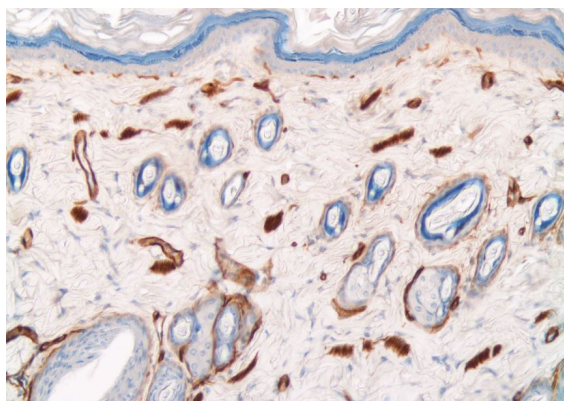
Form	Liquid
Purification	Purified.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	COL4A1
Gene Full Name	collagen, type IV, alpha 1

Background	<p>This gene encodes a type IV collagen alpha protein. Type IV collagen proteins are integral components of basement membranes. This gene shares a bidirectional promoter with a paralogous gene on the opposite strand. The protein consists of an amino-terminal 7S domain, a triple-helix forming collagenous domain, and a carboxy-terminal non-collagenous domain. It functions as part of a heterotrimer and interacts with other extracellular matrix components such as perlecan, proteoglycans, and laminins. In addition, proteolytic cleavage of the non-collagenous carboxy-terminal domain results in a biologically active fragment known as arresten, which has anti-angiogenic and tumor suppressor properties. Mutations in this gene cause porencephaly, cerebrovascular disease, and renal and muscular defects. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]</p>
Function	<p>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.</p> <p>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. [UniProt]</p>
Calculated Mw	161 kDa
PTM	<p>Lysines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in all cases and bind carbohydrates.</p> <p>Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.</p> <p>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.</p> <p>The trimeric structure of the NC1 domains is stabilized by covalent bonds between Lys and Met residues.</p> <p>Proteolytic processing produces the C-terminal NC1 peptide, arresten. [UniProt]</p>
Cellular Localization	Secreted, extracellular space, extracellular matrix, basement membrane. [UniProt]

## Images



ARG24015 anti-Collagen IV antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat skin tissue stained with ARG24015 anti-Collagen IV antibody.