# **Product Datasheet**

# Collagen IV Antibody - BSA Free NB120-6586

Unit Size: 0.1 mg

Store at 4C short term. For extended storage, add an equal volume of glycerol, aliquot and store at -20C or below. Avoid repeated freeze-thaw cycles.

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# NB120-6586

Collagen IV Antibody - BSA Free

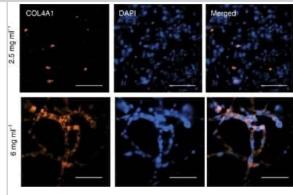
Collagen IV Antibody - BSA Free	
Product Information	
Unit Size	0.1 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. For extended storage, add an equal volume of glycerol, aliquot and store at -20C or below. Avoid repeated freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Product Description</b>	
Description	This antibody has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. Some class-specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues.  Store vial at 4C prior to opening. This product is stable at 4C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, mix with an equal volume of glycerol, aliquot contents and freeze at -20C or below. Avoid cycles of freezing and thawing.
Host	Rabbit
Gene ID	1282
Gene Symbol	COL4A1
Species	Human, Mouse, Rat, Bovine, Feline
Reactivity Notes	This antibody reacts with most mammalian Collagen IV and has negligible cross-reactivity with Type I, II, III, V or VI collagens. Non-specific cross-reaction of anticollagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.   Sold   Sold
Specificity/Sensitivity	Some class-specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues. This antibody reacts with most mammalian Collagen IV and has negligible cross-reactivity with Type I, II, III, V or VI collagens. Non-specific cross-reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.
Immunogen	Collagen IV from human and bovine placenta (Uniprot: P02462)
<b>Product Application Details</b>	
Applications	Western Blot, Simple Western, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Immunohistochemistry Free-Floating, Knockout Validated, Super-Resolution Microscopy



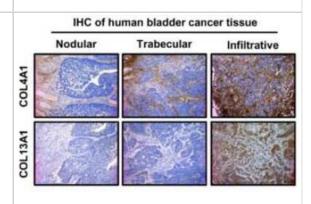
Recommended Dilutions	Western Blot 1:1000-1:10000, Simple Western 1:50, ELISA 1:5000-1:50000, Immunohistochemistry 1:50-1:200, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:100, Immunohistochemistry-Paraffin 1:50-1:200, Immunohistochemistry-Frozen, Immunohistochemistry Free-Floating, Knockout Validated, Super-Resolution Microscopy
Application Notes	This product has been tested by dot blot and IHC and is suitable for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, immunoprecipitation, native (non-denaturing, non-dissociating) PAGE, immunohistochemistry, and western blotting for highly sensitive qualitative analysis.  Use in Immunohistochemistry Free-Floating reported in scientific literature (PMID: 32245949).

## **Images**

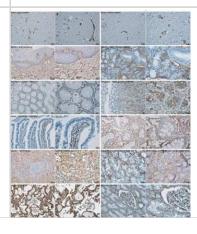
Immunocytochemistry/Immunofluorescence: Collagen IV Antibody [NB120-6586] - Immunofluorescence staining of MDA-MB-231 cells for collagen IV after 7 days of culture in 6 vs. 2.5mgml^-1. Representative images of n=2 biological replicates. Scale bar 100um. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/29162797/) licensed under a CC-BY license.



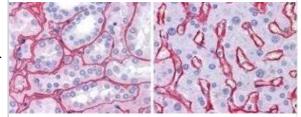
Immunohistochemistry-Paraffin: Collagen IV Antibody [NB120-6586] - IHC-P image submitted by a verified customer review.



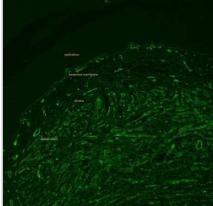
Immunohistochemistry-Paraffin: Collagen IV Antibody [NB120-6586] - Analysis of Collagen IV in various paraffin embedded human tissues. Image courtesy of product review submitted by Daniel Pirici.



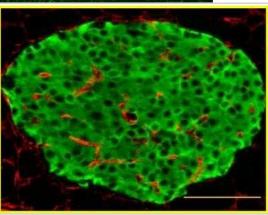
Immunohistochemistry-Paraffin: Collagen IV Antibody [NB120-6586] - Collagen IV antibody at 1:400, 45 min RT showed strong staining in FFPE sections of human kidney (left) with strong red staining observed in glomeruli and liver (right) with strong staining in sinusoids. Staining for both tissues was consistent with a basement membrane distribution. Slides were steamed in 0.01 M sodium citrate buffer, pH 6.0 at 100C for 20 minutes for antigen retrieval.



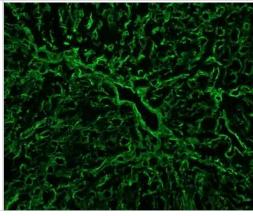
Immunohistochemistry-Paraffin: Collagen IV Antibody [NB120-6586] - Analysis of Collagen IV in paraffin embedded mouse cervix tissue using anti-Collagen IV antibody. IHC-P image submitted by a verified customer review.



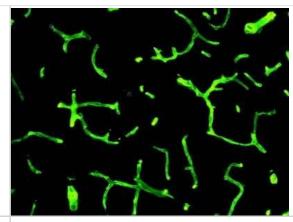
Immunohistochemistry-Paraffin: Collagen IV Antibody [NB120-6586] - Analysis using the Biotin conjugate of NB120-6586. Staining of Collagen IV (red) and Insulin (green) in mouse pancreas. IHC-P image submitted by a verified customer review.



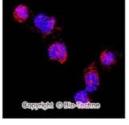
Immunohistochemistry-Frozen: Collagen IV Antibody [NB120-6586] - Mouse liver tissue. Collagen IV antibody at 1:200 dilution. Overnight incubation, no permeabilization. IHC-Fr image submitted by a verified customer review.

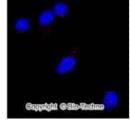


Immunohistochemistry-Frozen: Collagen IV Antibody [NB120-6586] - Mouse brain tissue. Antibody at 1:500. IHC-Fr image submitted by a verified customer review.



Immunocytochemistry/ Immunofluorescence: Collagen IV Antibody [NB120-6586] - Collagen IV was detected in immersion fixed THP-1 (positive) but not THP-1 KO (negative) cells using 10 ug/mL Rabbit Anti-Human/Bovine Polyclonal Antibody (Catalog # NB120-6586) for 3 hours at room temperature. Cells were stained with the NorthernLights(TM) 557-conjugated Donkey anti-Rabbit IgG Secondary Antibody [NL557] (red; Catalog # NL004) and counterstained with DAPI (blue).





Positive (THP-1 cells)

Negative (THP-1 KO cells)

#### **Publications**

Xie Y, Yang F, He L, Huang H et Al. Single-cell dissection of the human blood-brain barrier and glioma blood-tumor barrier Neuron 2024-08-27 [PMID: 39191260]

Li Y, Di C, Song S, Zhang Y et Al. Choroid plexus mast cells drive tumor-associated hydrocephalus Cell 2023-12-06 [PMID: 38056463]

Lipp SN, Jacobson KR, Schwaderer AL et al. Foxd1 is Required for 3d Patterning of the Kidney Interstitial Matrix Developmental dynamics: an official publication of the American Association of Anatomists 2022-11-06 [PMID: 36335435]

Pedard, M;Prevost, L;Carpena, C;Holleran, B;Desrues, L;Dubois, M;Nicola, C;Gruel, R;Godefroy, D;Deffieux, T;Tanter, M;Ali, C;Leduc, R;Prézeau, L;Gandolfo, P;Morin, F;Wurtz, O;Bonnard, T;Vivien, D;Castel, H; The urotensin II receptor triggers an early meningeal response and a delayed macrophage-dependent vasospasm after subarachnoid hemorrhage in male mice Nature communications 2024-09-29 [PMID: 39341842]

M Dudek, D Pfister, S Donakonda, P Filpe, A Schneider, M Laschinger, D Hartmann, N Hüser, P Meiser, F Bayerl, D Inverso, J Wigger, M Sebode, R Öllinger, R Rad, S Hegenbarth, M Anton, A Guillot, A Bowman, D Heide, F Müller, P Ramadori, V Leone, C Garcia-Cac, T Gruber, G Seifert, AM Kabat, JP Malm, S Reider, M Effenberge, S Roth, AT Billeter, B Müller-Sti, EJ Pearce, F Koch-Nolte, R Käser, H Tilg, R Thimme, T Böttler, F Tacke, JF Dufour, D Haller, PJ Murray, R Heeren, D Zehn, JP Böttcher, M Heikenwäld, PA Knolle Auto-aggressive CXCR6+ CD8 T cells cause liver immune pathology in NASH Nature, 2021-03-24;0(0):. 2021-03-24 [PMID: 33762736]

Brummer G, Acevedo DS, Hu Q et al. Chemokine Signaling Facilitates Early-stage Breast Cancer Survival and Invasion through Fibroblast-dependent Mechanisms Mol. Cancer Res. 2017-11-13 [PMID: 29133591]

Yuting Feng, Shuyi Wang, Xiaoye Liu, Yiming Han, Hongwei Xu, Xiaocen Duan, Wenyue Xie, Zhuoling Tian, Zuoying Yuan, Zhuo Wan, Liang Xu, Siying Qin, Kangmin He, Jianyong Huang Geometric constraint-triggered collagen expression mediates bacterial-host adhesion Nature Communications 2023-12-09 [PMID: 38071397]

James E Parkinson, Stella Pearson, Dominik Rückerl, Judith E Allen, Tara E Sutherland The magnitude of airway remodeling is not altered by distinct allergic inflammatory responses in BALB/c versus C57BL/6 mice but matrix composition differs. Immunology and cell biology 2021-09-28 [PMID: 33587776]

Fang, L;Zhou, L;Kulić, Ž;Lehner, MD;Tamm, M;Roth, M; EPs® 7630 Stimulates Tissue Repair Mechanisms and Modifies Tight Junction Protein Expression in Human Airway Epithelial Cells International journal of molecular sciences 2023-07-07 [PMID: 37446408] (WB)

Root-Bernstein R, Huber J, Ziehl A, Pietrowicz M. SARS-CoV-2 and Its Bacterial Co- or Super-Infections Synergize to Trigger COVID-19 Autoimmune Cardiopathies International Journal of Molecular Sciences 2023-07-29 [PMID: 37569555] (ELISA)

Lu CL, Ortmeier S, Brudvig J et al. Collagen has a unique SEC24 preference for efficient export from the endoplasmic reticulum Traffic 2022-01-01 [PMID: 34761479] (Immunohistochemistry)

El-Naseery NI, Elewa YHA, El-Behery EI, Dessouky AA Human umbilical cord blood-derived mesenchymal stem cells restored hematopoiesis by improving radiation induced bone marrow niche remodeling in rats Annals of anatomy = Anatomischer Anzeiger: official organ of the Anatomische Gesellschaft 2023-07-15 [PMID: 37460043] (IHC-P, Rat)

Details:

1:1000 dilution

More publications at http://www.novusbio.com/NB120-6586





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# **Products Related to NB120-6586**

HAF008 Goat anti-Rabbit IgG Secondary Antibody [HRP]

NB7160 Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

NBP2-24891 Rabbit IgG Isotype Control NBP1-97245 Collagen IV Native Protein

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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