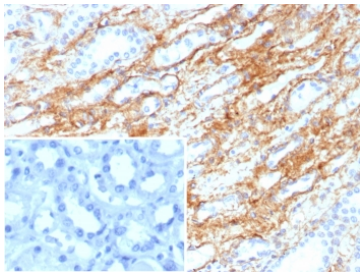
Collagen IV Antibody Recombinant Rabbit MAb [clone COL4/8657R] (V4334)

Catalog No.	Formulation	Size
V4334-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4334-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4334SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	COL4/8657R
Purity	Protein A/G affinity
UniProt	P02462, P08572, P29400, P53420
Localization	Secreted, Extracellular matrix
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This Collagen IV antibody is available for research use only.



Immunohistochemistry of Collagen IV antibody in human kidney tissue. Formalin-fixed, paraffin-embedded human kidney was stained using recombinant rabbit monoclonal Collagen IV antibody (clone COL4/8657R). Heat induced epitope retrieval was performed by boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 20 min followed by cooling prior to staining. Strong HRP-DAB brown staining outlines glomerular basement membranes and tubular basement membranes, consistent with extracellular localization of Collagen type IV within renal tissue. The inset shows PBS used in place of primary antibody as a secondary-only negative control.

Description

Collagen IV Antibody Recombinant Rabbit MAb detects Collagen type IV, a major structural component of basement

membranes and an essential constituent of the extracellular matrix. This recombinant rabbit monoclonal antibody recognizes Collagen IV in research applications and supports evaluation of basement membrane integrity, vascular architecture, and epithelial-stromal interfaces in tissue models.

Collagen IV antibody, also referred to as Type IV collagen antibody and COL4A antibody in the literature, targets network-forming collagen chains encoded by genes including COL4A1, COL4A2, COL4A3, COL4A4, COL4A5, and COL4A6. Unlike fibrillar collagens, Collagen IV assembles into a sheet-like scaffold within basement membranes. These networks interact with laminins, nidogens, and heparan sulfate proteoglycans to provide structural support and regulate cell adhesion, migration, differentiation, and filtration barrier function.

Collagen IV is widely distributed in vascular basement membranes, kidney glomeruli, lung alveolar septa, skeletal muscle endomysium, and epithelial basement membrane zones throughout the body. In tissue-based analyses, Collagen IV typically demonstrates linear staining along basement membranes, outlining blood vessels, glands, and epithelial layers. This characteristic pattern makes a Collagen IV Antibody Recombinant Rabbit MAb useful for studies of angiogenesis, tumor invasion, extracellular matrix remodeling, and developmental tissue organization.

Disruption or altered expression of Collagen IV has been associated with hereditary nephropathies, vascular disorders, and cancer progression where basement membrane degradation facilitates invasion. A Collagen IV Antibody Recombinant Rabbit MAb can therefore assist in investigations of extracellular matrix composition, epithelial-mesenchymal interactions, and microenvironmental changes in disease models. This antibody targets Collagen IV in research applications and is available from NSJ Bioreagents.

Application Notes

Optimal dilution of the Collagen IV antibody recombinant rabbit mAb should be determined by the researcher.

Immunogen

Purified human Collagen IV protein was used as the immunogen for the Collagen IV antibody recombinant rabbit mAb.

Storage

Aliquot the Collagen IV antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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