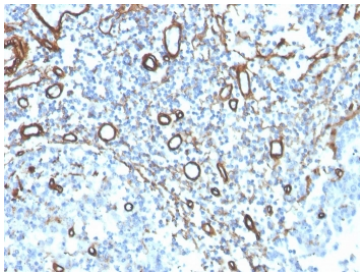
Collagen IV Antibody Rabbit Monoclonal / COL4A [clone COL4/4241R] (V8505)

Catalog No.	Formulation	Size
V8505-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8505-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8505SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

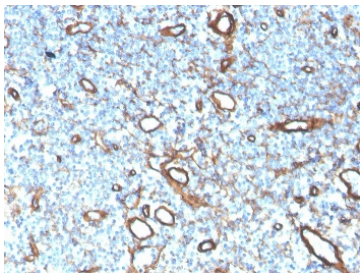
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	COL4/4241R
Purity	Protein A affinity chromatography
UniProt	P02462
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 tonsil. Formalin-fixed, paraffin-embedded human tonsil tissue was stained using a rabbit monoclonal COL4/4241R, Collagen IV antibody. 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. HRP-DAB brown chromogenic signal highlights vascular basement membranes and stromal extracellular matrix structures, outlining small blood vessels and reticular frameworks consistent with Collagen type IV localization.



IHC staining of FFPE human tonsil with Collagen IV antibody rabbit monoclonal clone COL4/4241R. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Collagen IV Antibody Rabbit Monoclonal detects Collagen type IV, a major structural component of basement membranes and an essential element of the extracellular matrix. This 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, forming a structural framework that interacts with laminins, nidogens, and heparan sulfate proteoglycans. These interactions regulate cell adhesion, migration, differentiation, and barrier function across multiple organ systems.

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 studies, Collagen IV typically demonstrates linear staining along basement membranes, outlining blood vessels, glands, and epithelial layers. This pattern makes a Collagen IV Antibody Rabbit Monoclonal valuable for investigations of angiogenesis, tumor invasion, extracellular matrix remodeling, and developmental tissue organization.

Alterations in Collagen IV composition or distribution are associated with renal disorders, cerebrovascular abnormalities, and cancer progression, where basement membrane disruption facilitates invasion. A Collagen IV Antibody Rabbit Monoclonal can therefore assist in research focused on extracellular matrix biology, epithelial-mesenchymal transition, 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 rabbit monoclonal should be determined by the researcher.

Immunogen

Purified human placental extract was used as the immunogen for the Collagen IV antibody rabbit monoclonal.

Storage

Store the Collagen IV antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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