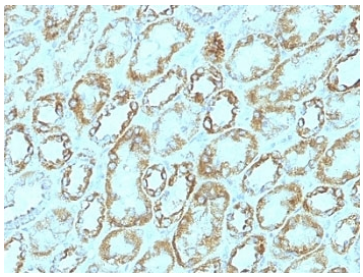
Laminin gamma 1 Antibody A5 / LAMC1 Monoclonal Antibody [clone A5] (V2682)

Catalog No.	Formulation	Size
V2682-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2682-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2682SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2682IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Citations (4)

Bulk quote request

Species Reactivity	Human, Mouse
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG2a, kappa
Clone Name	A5
Purity	Protein G affinity chromatography
UniProt	P11047
Localization	Basement membrane, secreted
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Laminin gamma 1 Antibody A5 / LAMC1 Monoclonal Antibody is available for research use only.



Immunohistochemistry analysis of Laminin gamma 1 Antibody A5 in human renal cell carcinoma tissue. Formalin-fixed, paraffin-embedded human renal cell carcinoma tissue was stained using Laminin gamma 1 antibody (clone A5). Brown chromogenic signal is observed outlining basement membrane structures surrounding tumor nests and vascular profiles, producing a delicate linear and reticular staining pattern consistent with extracellular matrix localization. Tumor cell cytoplasm shows minimal staining, while stromal regions demonstrate variable basement membrane-associated signal. This staining pattern reflects basement membrane-associated expression of Laminin gamma 1 in renal cell carcinoma.

Description

Laminin gamma 1 Antibody A5 / LAMC1 Monoclonal Antibody recognizes Laminin gamma 1, also known as LAMC1, a core subunit of multiple laminin heterotrimeric complexes that are major structural components of basement membranes. Laminin gamma 1 is a secreted extracellular matrix protein that associates with alpha and beta laminin chains to form functional laminin isoforms, contributing to basement membrane assembly, stability, and cell-matrix interactions. Laminin gamma 1 Antibody is commonly used in research and pathology contexts and is frequently referred to in the literature as LAMC1 antibody or Laminin gamma-1 antibody.

Laminin gamma 1 is widely expressed in basement membranes underlying epithelial, endothelial, and muscle tissues. It plays a central role in maintaining tissue architecture by supporting cell adhesion, polarity, migration, and differentiation through interactions with cell surface receptors such as integrins and dystroglycan. In epithelial tissues, LAMC1-containing laminins form a continuous basement membrane that separates epithelial cells from underlying stroma, while in vascular and muscular tissues, Laminin gamma 1 contributes to structural integrity and mechanical resilience.

Alterations in Laminin gamma 1 expression and basement membrane organization have been reported in a variety of pathological contexts. Disruption, thickening, or fragmentation of LAMC1-containing basement membranes has been observed in cancer, fibrosis, and inflammatory conditions, reflecting changes in extracellular matrix remodeling and tissue invasion. As a result, Laminin gamma 1 antibody staining patterns are frequently evaluated in research studies focused on tumor-stroma interactions, epithelial invasion, angiogenesis, and extracellular matrix biology.

At the molecular level, Laminin gamma 1 is essential for the assembly and secretion of several laminin isoforms, making it a key regulator of basement membrane composition across many tissues. Its broad distribution and structural role make Laminin gamma 1 Antibody a valuable tool for visualizing basement membranes, assessing extracellular matrix organization, and studying cell-matrix interactions in normal and diseased tissues. The Laminin gamma 1 Antibody (clone A5) is designed to detect Laminin gamma 1 expression in research applications where evaluation of basement membrane structure and extracellular matrix integrity is required.

Explore our Laminin Gamma 1 Antibody, featuring protein microarray validation data, for additional research tools targeting LAMC1, an essential basement membrane protein involved in extracellular matrix organization, cell adhesion, and tissue integrity.

Application Notes

Optimal dilution of the Laminin gamma 1 Antibody A5 / LAMC1 Monoclonal Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A murine EHS laminin preparation was used as the immunogen for the Laminin gamma 1 antibody.

Storage

Store the Laminin gamma 1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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