

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

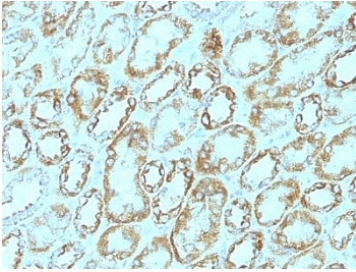
Catalog No.	Formulation	Size
V2682-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2682-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2682SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2682IHC-7ML	Prediluted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



Citations (4)

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Availability	1-3 business days
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 is available for research use only.



Immunohistochemistry analysis of Laminin gamma 1 / LAMC1 antibody (clone 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 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.

Application Notes

Optimal dilution of the Laminin gamma 1 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).