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Product Information

Anti-Laminin antibody, Mouse monoclonal
clone LAM-89, purified from hybridoma cell culture

Product Number **SAB4200719**

Product Description

Anti-Laminin antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the LAM-89 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified Laminin from human Placenta. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Laminin antibody specifically recognizes Laminin from human, feline and porcine[1] origin. The antibody does not cross reacts with rabbit, sheep, dog, goat, rat, guinea pig, chicken, frog, snake, carp and lizard Laminin. The antibody shows reactivity with Laminin and specifically staining basal membrane of blood vessels, epithelium, nerve and muscle fiber. Monoclonal anti-Laminin shows no reaction with Collagen IV, fibronectin, vitronectin and chondroitin sulfate type A, B or C. Monoclonal Anti-Laminin is recommended to use in various immunochemical assays, including Immunohistochemistry, Immunoblotting (~850 kDa), Immunofluorescence, ELISA and electron microscopy.[1-8]

Laminins are complexed extracellular glycoproteins which assemble the basal components of the basement membrane (BM). Laminins contribute to the structure of the extracellular matrix (ECM) and are the major players in a variety of core cell processes control, including regulating the rates of cell proliferation, differentiation, adhesion, migration, cell shaping, phenotype stability and resistance to apoptosis.[9-10] Each Laminin is a heterotrimer (~850kDa) comprising of an α (~400 kDa) β (~200 kDa) and γ (~200 kDa) chains all held together by disulfide bonds. In the human genome there are 11 genetically distinct Laminin chains: 5 α (LAMA1–5), 3 β (LAMB1–3) and 3 γ (LAMC1–3), which have been demonstrated to assemble into 16 Laminin heterotrimer compositions in-*vivo*.[11-12]
Laminin polymers are connected by heparan sulfate proteoglycan and by nidogen (entactin) to collagen IV polymers, forming supramolecular network which is important for the BM stability.[12]

Significant quantities of Laminin are found in the BM, the thin ECM that surround epithelial tissue, nerve and fat cells and in the smooth striated and cardiac muscle. Variations in the expression of this protein have been observed during embryogenesis, organogenesis, post traumatic healing, cancer and vascular development including vascular development of the retina.[13-14]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.03-0.06 μg/mL is recommended using Laminin from Engelbreth-Holm-Swarm murine sarcoma basement membrane.

Immunohistochemistry: a working concentration of 20-40 μg/ml is recommended using pronase-retrieved formalin-fixed, paraffin-embedded human tongue sections.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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