Laminin Gamma 1-3 Antibody / Pan Laminin Gamma Antibody (R31563)

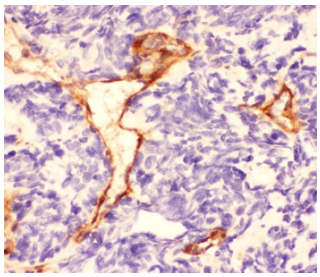
Catalog No.	Formulation	Size
R31563	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

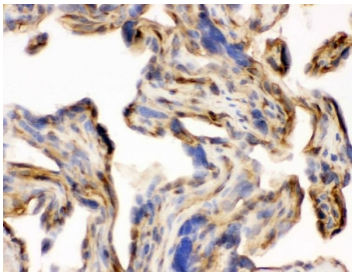
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P02468, Q61092, Q9R0B6
Gene ID	3915, 3918, 10319
Localization	Membrane, secreted (cytoplasmic in some tissue)
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunohistochemistry (Frozen): 1-2ug/ml
Limitations	This Laminin Gamma 1-3 Antibody / Pan Laminin Gamma Antibody is available for research use only.



Laminin Gamma 1-3 Antibody by WB in human HeLa and HepG2 cells. Western blot analysis of human HeLa (lane 1) and HepG2 (lane 2) cell lysates using Laminin Gamma 1-3 Antibody. The expected molecular weights are approximately 172-200 kDa for laminin gamma 1 and gamma 3, and 130-140 kDa for laminin gamma 2.



Laminin Gamma 1-3 Antibody by IHC in human lung cancer. Immunohistochemistry of FFPE human lung cancer tissue using Laminin Gamma 1-3 Antibody. Brown immunoreactivity highlights extracellular matrix structures surrounding groups of tumor cells, with prominent staining along stromal boundaries. Hematoxylin counterstains nuclei blue. Heat-induced epitope retrieval was performed by boiling sections in 10 mM citrate buffer, pH 6, for 20 minutes.



Laminin Gamma 1-3 Antibody by IHC in frozen human placenta. Immunohistochemistry of frozen human placental tissue using Laminin Gamma 1-3 Antibody. Brown immunoreactivity is visible along portions of the trophoblast-associated surfaces and within the stromal regions of chorionic villi. Hematoxylin counterstains nuclei blue. Heat-induced epitope retrieval was performed by boiling sections in 10 mM citrate buffer, pH 6, for 20 minutes.

Description

Laminin Gamma 1-3 Antibody / Pan Laminin Gamma Antibody is designed to recognize members of the laminin gamma chain family, comprising laminin gamma 1, gamma 2, and gamma 3. These extracellular matrix proteins are encoded by LAMC1, LAMC2, and LAMC3, respectively. Laminin gamma chains combine with alpha and beta chains to form heterotrimeric laminin complexes that contribute to basement membrane assembly, cell adhesion, and tissue architecture. The three gamma chains share structural features but differ in their distribution, molecular interactions, and biological functions.

Laminin gamma 1, encoded by LAMC1, is broadly distributed in basement membranes and participates in numerous laminin isoforms. These include laminin-111, laminin-211, laminin-411, and laminin-511, which contribute to the structural organization of epithelial, endothelial, and other specialized tissue environments. Gamma 1-containing laminins interact with extracellular matrix components such as nidogens, collagen IV, and heparan sulfate proteoglycans, helping establish networks that provide mechanical support and regulate cell-matrix communication.

Laminin gamma 2, encoded by LAMC2, is a component of laminin-332, an extracellular matrix complex particularly important for epithelial attachment to basement membranes. Laminin-332 participates in integrin-mediated adhesion and the organization of hemidesmosomes, which help anchor epithelial cells to underlying connective tissue. Changes in gamma 2 expression and processing have been investigated during wound repair, epithelial migration, and carcinoma invasion. Its biological functions therefore extend beyond structural support to processes involving tissue remodeling and cellular movement.

Laminin gamma 3, encoded by LAMC3, exhibits a more restricted distribution and contributes to specialized laminin complexes. Research has linked LAMC3 to nervous system development and the organization of extracellular environments that influence tissue morphogenesis. Pathogenic variants in LAMC3 have been associated with abnormalities of cerebral cortical development, illustrating the importance of laminin gamma chain diversity in developmental biology.

The different gamma chains help determine the composition and functional properties of laminin-containing extracellular matrices. Although R31563 is intended to recognize all three gamma chains, individual recognition has not been independently established by the available validation figures. NSJ Bioreagents offers this Laminin Gamma 1-3 Antibody for investigating basement membrane organization, extracellular matrix composition, and the biological roles of laminin gamma family proteins.

Explore our Laminin Gamma Antibody R32946 for additional research tools targeting laminin gamma 1, gamma 2, and

gamma 3, with validation data from human, mouse, and rat samples.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Laminin Gamma 1-3 Antibody / Pan Laminin Gamma Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide mixture of Laminin gamma 1, 2 & 3 (DLNKLNEIEGTLNKAKDEMK + MSELEERARQQRGHLHLLET + LQRKLSLLEQESQQQELQIQ) was used as the immunogen for this Laminin Gamma 1-3 Antibody.

Storage

After reconstitution, the Laminin Gamma 1-3 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Laminin gamma antibody, Laminin gamma chain antibody, Laminin gamma 1/2/3 antibody, Laminin gamma family antibody, Laminin gamma subunit antibody

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