

# Anti-Laminin $\beta 2/\gamma 1$ Subunits Antibody

Catalog # AN1831

## **Product Information**

Application	ICC
Primary Accession	<u>P11047</u>
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG2b
Clone Names	M046
Calculated MW	177603

#### **Additional Information**

Gene ID Other Names	3915 Laminin subunit gamma-1, Laminin B2 chain Laminin-1 Laminin-10 Laminin-11 Laminin-2 Laminin-3 Laminin-4 Laminin-6 Laminin-7 Laminin-8 Laminin-9 S-laminin S-LAM gamma LAMC1 LAMB2 Laminin 521, Laminin beta 2
Target/Specificity	The human basal lamina contains Collagen Type IV, proteoglycans, and glycoproteins. Laminin is a high molecular weight (850 kDa) oligomer, consisting of three different chains laminin alpha ( $\alpha$ ), beta ( $\beta$ ), and gamma ( $\gamma$ ) joined by disulfide bonds. The structure of human laminins include two helical domains (I & II) at the COOH-terminal, a laminin IV domain, multiple EGF-like repeats, and a laminin globular domain (G), as well as an N-terminal domain VI. Domains IV and VI are the binding sites for collagen and heparan sulfate, respectively. Several isoforms have been identified for the genes of each chain including 5 alpha chains, 4 beta chains, and 3 gamma chains. Laminin $\beta$ 2 and $\gamma$ 1 are found in laminin 121, laminin 221, laminin 421, and laminin 521. The expression of the Laminin subunits is found in the basal lamina of tissues. Here, the protein interacts with other extracellular matrix components to mediate cell attachment, migration and organization during embryonic development.
Dilution	ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Laminin $\beta 2/\gamma 1$ Subunits Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

## Background

The human basal lamina contains Collagen Type IV, proteoglycans, and glycoproteins. Laminin is a high

molecular weight (850 kDa) oligomer, consisting of three different chains laminin alpha ( $\alpha$ ), beta ( $\beta$ ), and gamma ( $\gamma$ ) joined by disulfide bonds. The structure of human laminins include two helical domains (I & II) at the COOH-terminal, a laminin IV domain, multiple EGF-like repeats, and a laminin globular domain (G), as well as an N-terminal domain VI. Domains IV and VI are the binding sites for collagen and heparan sulfate, respectively. Several isoforms have been identified for the genes of each chain including 5 alpha chains, 4 beta chains, and 3 gamma chains. Laminin  $\beta$ 2 and  $\gamma$ 1 are found in laminin 121, laminin 221, laminin 421, and laminin 521. The expression of the Laminin subunits is found in the basal lamina of tissues. Here, the protein interacts with other extracellular matrix components to mediate cell attachment, migration and organization during embryonic development.

### Images



Native western blot image of human laminin isoforms: laminin 521 ( $\alpha$ 5 $\beta$ 2 $\gamma$ 1), laminin 121 ( $\alpha$ 1 $\beta$ 2 $\gamma$ 1), laminin 221 ( $\alpha$ 2 $\beta$ 2 $\gamma$ 1), laminin 332 ( $\alpha$ 3 $\beta$ 3 $\gamma$ 2), laminin 511 ( $\alpha$ 5 $\beta$ 1 $\gamma$ 1), laminin 411 ( $\alpha$ 4 $\beta$ 1 $\gamma$ 1), as well as human A431, A549, and NCI-H2052 cells. The blot was probed with mouse monoclonal anti-Laminin  $\beta$ 2/ $\gamma$ 1 subunit (AN1831) at 1:1000.



Immunocytochemical labeling of laminin  $\beta 2/\gamma 1$  subunits in aldehyde fixed and NP-40 permeabilized human MDA-MB-231 breast carcinoma cells. The cells were labeled with mouse monoclonal anti-Laminin  $\beta 2/\gamma 1$ subunits (AN1831). The antibody was detected using goat anti-mouse DyLight® 594.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.