

## Basic Information

Product Name	Anti-Laminin gamma 1/LAMC1 Antibody	
Gene Name	LAMC1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Laminin gamma 1, different from the related mouse sequence by one amino acid and rat sequence by three amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	200 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

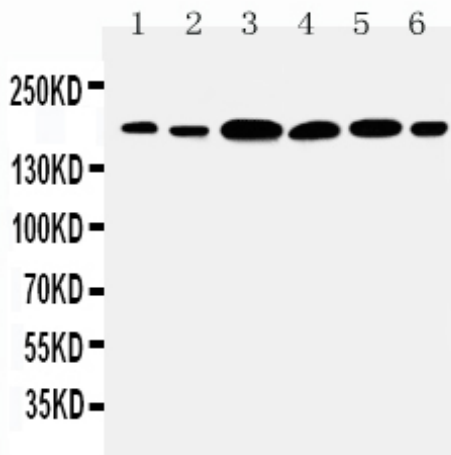
Laminin gamma1, Laminin subunit gamma-1, is a protein that in humans is encoded by the LAMC1 gene. Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins are composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively) and they form a cruciform structure consisting of 3 short arms, each formed by a different chain, and a long arm composed of all 3 chains. Each laminin chain is a multidomain protein encoded by a distinct gene. Several isoforms of each chain have been described. Different alpha, beta and gamma chain isomers combine to give rise to different heterotrimeric laminin isoforms which are designated by Arabic numerals in the order of their discovery, i.e. alpha1beta1gamma1 heterotrimer is laminin 1. The biological functions of the different chains and trimer molecules are largely unknown, but some of the chains

have been shown to differ with respect to their tissue distribution, presumably reflecting diverse functions in vivo. This gene encodes the gamma chain isoform laminin, gamma 1. The gamma 1 chain, formerly thought to be a beta chain, contains structural domains similar to beta chains, however, lacks the short alpha region separating domains I and II. The structural organization of this gene also suggested that it had diverged considerably from the beta chain genes. Embryos of transgenic mice in which both alleles of the gamma 1 chain gene were inactivated by homologous recombination, lacked basement membranes, indicating that laminin, gamma 1 chain is necessary for laminin heterotrimer assembly. It has been inferred by analogy with the strikingly similar 3' UTR sequence in mouse laminin gamma 1 cDNA, that multiple polyadenylation sites are utilized in human to generate the 2 different sized mRNAs(5.5 and 7.5 kb) seen on Northern analysis.

## Reference

Anti-Laminin gamma 1/LAMC1 Antibody被引用在1文献中。

## Selected Validation Data



Western blot analysis of Laminin gamma 1/LAMC1 using anti-Laminin gamma 1/LAMC1 antibody (PA1581). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: Rat Kidney tissue lysates,

Lane 2: Rat Lung tissue lysates,

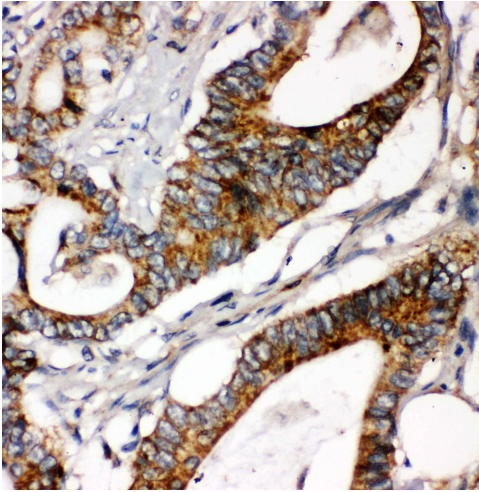
Lane 3: U87 whole cell lysates,

Lane 4: SMMC whole cell lysates,

Lane 5: HELA whole cell lysates,

Lane 6: SKOV1 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Laminin gamma 1/LAMC1 antigen affinity purified polyclonal antibody (PA1581) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Laminin gamma 1/LAMC1 at approximately 200 kDa. The expected band size for Laminin gamma 1/LAMC1 is at 178 kDa.



IHC analysis of Laminin gamma 1/LAMC1 using anti-Laminin gamma 1/LAMC1 antibody (PA1581).

Laminin gamma 1/LAMC1 was detected in a paraffin-embedded section of human intestinal cancer tissue. The tissue section was incubated with rabbit anti-Laminin gamma 1/LAMC1 Antibody (PA1581) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.