

**Product Name: KD-Validated Laminin Gamma 1 Recombinant Rabbit Monoclonal Antibody**  
**Catalog #: KVA01815**

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM                                                                      |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000 |
| <b>Molecular Weight</b> | Calculated MW: 177.6kDa              |

## Antigen Information

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | LAMC1                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Alternative Names</b> | LAMC1; Laminin Subunit Gamma 1; Laminin B2 Chain; LAMB2; Laminin, Gamma 1 (Formerly LAMB2); Laminin-10 Subunit Gamma; Laminin-11 Subunit Gamma; Laminin Subunit Gamma-1; S-Laminin Subunit Gamma; Laminin-2 Subunit Gamma; Laminin-3 Subunit Gamma; Laminin-4 Subunit Gamma; Laminin-6 Subunit Gamma; Laminin-7 Subunit Gamma; Laminin-8 Subunit Gamma; Laminin-9 Subunit Gamma; S-LAM Gamma; Laminin-1 Subunit Gamma |
| <b>Gene ID</b>           | 3915.0                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>SwissProt ID</b>      | P11047                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Immunogen</b>         | A synthesized peptide derived from human Laminin gamma 1                                                                                                                                                                                                                                                                                                                                                              |

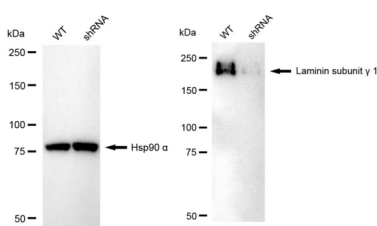
## Background

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, composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively), have 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. [provided by RefSeq, Aug 2011]

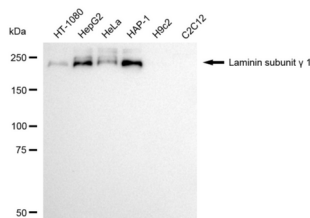
## Research Area

Signal Transduction, Neuroscience

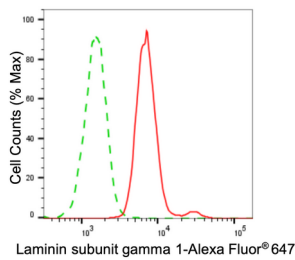
## Image Data



Western blotting analysis using laminin subunit  $\gamma$  1 antibody (KVA01815). Laminin subunit  $\gamma$  1 expression in wild type (WT) and laminin subunit  $\gamma$  1 (LAMC1) shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with laminin subunit  $\gamma$  1 antibody (KVA01815, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using laminin subunit gamma 1 antibody (KVA01815). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with laminin subunit gamma 1 antibody (KVA01815, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Flow cytometric analysis of laminin subunit gamma 1 expression in HAP-1 cells using laminin subunit gamma 1 antibody (KVA01815, 1:2,000). Green, isotype control; red, laminin subunit gamma 1.