

# Laminin $\gamma$ -2 (G-16): sc-31092

## BACKGROUND

Laminins are essential and abundant structural non-collagenous glycoproteins localizing to basement membranes. Basement membranes (cell-associated extracellular matrices (ECMs)) are polymers of laminins with stabilizing type IV collagen networks, nidogen, and several proteoglycans. Basement membranes are found under epithelial layers, around the endothelium of blood vessels, and surrounding muscle, peripheral nerve, and fat cells. Formation of basement membranes influences cell proliferation, phenotype, migration, gene expression, and tissue architecture. Each laminin is a heterotrimer of  $\alpha$ ,  $\beta$ , and gamma chain subunits that undergoes cell-secretion and incorporation into the ECM. Laminins can self-assemble, bind to other matrix macromolecules, and have unique and shared cell interactions mediated by integrins, dystroglycan, and cognate laminin receptors. The human laminin  $\gamma$ -2 gene maps to chromosome 1q25.3 and specifically localizes to epithelial cells in skin, lung and kidney.

## REFERENCES

1. Schnaper, H.W., Kleinman, H.K. and Grant, D.S. 1993. Role of laminin in endothelial cell recognition and differentiation. *Kidney Int.* 43: 20-25.
2. Tryggvason, K. 1993. The laminin family. *Curr. Opin. Cell Biol.* 5: 877-882.
3. Engvall, E. and Wewer, U.M. 1996. Domains of laminin. *J. Cell. Biochem.* 61: 493-501.
4. Luckenbill-Edds, L. 1997. Laminin and the mechanism of neuronal outgrowth. *Brain Res. Brain Res. Rev.* 23: 1-27.
5. Ekblom, M., Falk, M., Salmivirta, K., Durbeek, M. and Ekblom, P. 1998. Laminin isoforms and epithelial development. *Ann. N.Y. Acad. Sci.* 857: 194-211.
6. Hansen, K. and Abrass, C.K. 1999. Role of laminin isoforms in glomerular structure. *Pathobiology* 67: 84-91.
7. Aberdam, D., Viroille, T. and Simon-Assmann, P. 2000. Transcriptional regulation of laminin gene expression. *Microsc. Res. Tech.* 51: 228-237.
8. Colognato, H. and Yurchenco, P.D. 2000. Form and function: the laminin family of heterotrimers. *Dev. Dyn.* 218: 213-234.
9. LocusLink Report (LocusID: 3918). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: LAMC2 (human) mapping to 1q25.3; Lamc2 (mouse) mapping to 1 G3.

## SOURCE

Laminin  $\gamma$ -2 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Laminin  $\gamma$ -2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31092 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Laminin  $\gamma$ -2 (G-16) is recommended for detection of precursor and mature Laminin  $\gamma$ -2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Laminin  $\gamma$ -2 (G-16) is also recommended for detection of precursor and mature Laminin  $\gamma$ -2 in additional species, including canine and bovine.

Suitable for use as control antibody for Laminin  $\gamma$ -2 siRNA (h): sc-35782, Laminin  $\gamma$ -2 siRNA (m): sc-35783, Laminin  $\gamma$ -2 shRNA Plasmid (h): sc-35782-SH, Laminin  $\gamma$ -2 shRNA Plasmid (m): sc-35783-SH, Laminin  $\gamma$ -2 shRNA (h) Lentiviral Particles: sc-35782-V and Laminin  $\gamma$ -2 shRNA (m) Lentiviral Particles: sc-35783-V.

Molecular Weight of Laminin  $\gamma$ -2: 150 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, mouse lung extract: sc-2390 or rat lung extract: sc-2396.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
 Satisfaction  
 Guaranteed

Try **Laminin  $\gamma$ -2 (E-6): sc-28330** or **Laminin  $\gamma$ -2 (H-8): sc-393502**, our highly recommended monoclonal alternatives to Laminin  $\gamma$ -2 (G-16).