SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin γ-2 (G-7): sc-393225

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 α, β, and γ 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 γ-2 gene maps to chromosome 1q25.3 and specifically localizes to epithelial cells in skin, lung and kidney.

REFERENCES

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2. Schnaper, H.W., et al. 1993. Role of laminin in endothelial cell recognition and differentiation. Kidney Int. 43: 20-25.
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., et al. 1998. Laminin isoforms and epithelial development. Ann. Acad. N.Y. Sci. USA 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., et al. 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 γ-2 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1163-1190 at the C-terminus of Laminin γ-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393225 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Laminin γ-2 (G-7) is recommended for detection of Laminin γ-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 γ-2 (G-7) is also recommended for detection of Laminin γ-2 in additional species, including equine, canine and bovine.

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

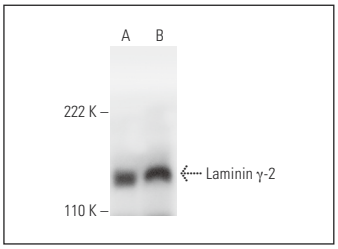
Molecular Weight of Laminin γ-2: 150 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or human lung extract: sc-363767.

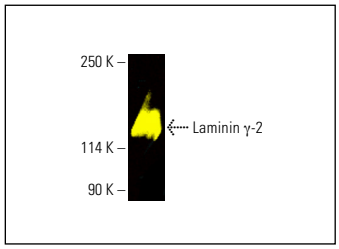
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Laminin γ-2 (G-7): sc-393225. Western blot analysis of Laminin γ-2 expression in A-431 whole cell lysate (**A**) and human lung tissue extract (**B**).



Laminin γ-2 (G-7): sc-393225. Fluorescent western blot analysis of Laminin γ-2 expression in A-431 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_{2a} BP-CFL 488: sc-542735.

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.