Laminin γ-2 (GB3): sc-80863



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-q31 and specifically localizes to epithelial cells in skin, lung and kidney.

REFERENCES

- 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.
- Engvall, E. and Wewer, U.M. 1996. Domains of Laminin. J. Cell. Biochem. 61: 493-501.
- Luckenbill-Edds, L. 1997. Laminin and the mechanism of neuronal outgrowth. Brain Res. Brain Res. Rev. 23: 1-27.
- Ekblom, M., Falk, M., Salmivirta, K., Durbeej, M. and Ekblom, P. 1998.
 Laminin isoforms and epithelial development. Ann. N.Y. Acad. Sci. 857: 194-211.
- Hansen, K. and Abrass, C.K. 1999. Role of Laminin isoforms in glomerular structure. Pathobiology 67: 84-91.
- Aberdam, D., Virolle, 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-q31; Lamc2 (mouse) mapping to 1 H1.

SOURCE

Laminin γ -2 (GB3) is a mouse monoclonal antibody raised against Laminin γ -2 of human origin.

PRODUCT

Each vial contains 100 μg lgG_1 in 1.0 ml of PBS with < 0.1% sodium azide, 5% glycerol and 1% gelatin.

RESEARCH USE

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

APPLICATIONS

Laminin γ -2 (GB3) is recommended for detection of Laminin γ -2 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Laminin γ -2 siRNA (h): sc-35782. Molecular Weight of Laminin γ -2: 140 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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