

Laminin γ -1 (H-190): sc-5584

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 -1 gene maps to chromosome 1q25.3 and is ubiquitously expressed in tissues that produce basement membranes.

CHROMOSOMAL LOCATION

Genetic locus: LAMC1 (human) mapping to 1q25.3; Lamc1 (mouse) mapping to 1 G3.

SOURCE

Laminin γ -1 (H-190) is a rabbit polyclonal antibody raised against amino acids 1420-1609 of Laminin γ -1 of human origin.

PRODUCT

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

APPLICATIONS

Laminin γ -1 (H-190) is recommended for detection of Laminin γ -1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 -1 (H-190) is also recommended for detection of Laminin γ -1 in additional species, including canine and bovine.

Suitable for use as control antibody for Laminin γ -1 siRNA (h): sc-29388, Laminin γ -1 siRNA (m): sc-35780, Laminin γ -1 shRNA Plasmid (h): sc-29388-SH, Laminin γ -1 shRNA Plasmid (m): sc-35780-SH, Laminin γ -1 shRNA (h) Lentiviral Particles: sc-29388-V and Laminin γ -1 shRNA (m) Lentiviral Particles: sc-35780-V.

Molecular Weight of Laminin γ -1: 200-215 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

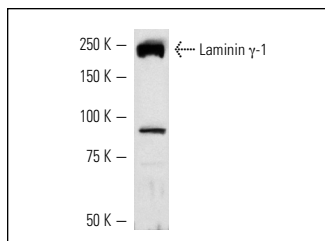
STORAGE

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

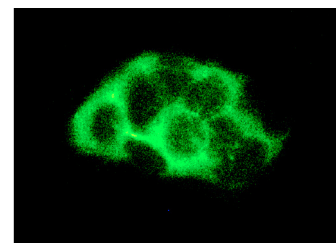
RESEARCH USE

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

DATA



Laminin γ -1 (H-190): sc-5584. Western blot analysis of Laminin γ -1 expression in A-431 whole cell lysate.



Laminin γ -1 (H-190): sc-5584. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Indyk, J.A., et al. 2003. Laminin chain expression suggests that Laminin-10 is a major isoform in the mouse hippocampus and is degraded by the tissue plasminogen activator/plasmin protease cascade during excitotoxic injury. *Neuroscience* 116: 359-371.
- Matsuura, H., et al. 2004. Localization of the laminin α 4 chain in the skin and identification of a heparin-dependent cell adhesion site within the laminin α 4 chain C-terminal LG4 module. *J. Invest. Dermatol.* 122: 614-620.
- Yaniv, S.P., et al. 2008. Norepinephrine-glucocorticoids interaction does not annul the opposite effects of the individual treatments on cellular plasticity in neuroblastoma cells. *Eur. J. Pharmacol.* 596: 14-24.
- Kvist, A.J., et al. 2008. The major basement membrane components localize to the chondrocyte pericellular matrix—a cartilage basement membrane equivalent? *Matrix Biol.* 27: 22-33.
- Kavushansky, A., et al. 2009. Physical stress differs from psychosocial stress in the pattern and time-course of behavioral responses, serum corticosterone and expression of plasticity-related genes in the rat. *Stress* 12: 412-425.
- Bechtel, M., et al. 2012. Different domains in nidogen-1 and nidogen-2 drive basement membrane formation in skin organotypic cocultures. *FASEB J.* 26: 3637-3648.
- Santi, P.A. and Johnson, S.B. 2013. Decellularized ear tissues as scaffolds for stem cell differentiation. *J. Assoc. Res. Otolaryngol.* 14: 3-15.
- Kim, D.W., et al. 2013. Complex temporal changes in TGF β oncogenic signaling drive thyroid carcinogenesis in a mouse model. *Carcinogenesis*. E-published.



Try **Laminin γ -1 (D-3): sc-17751** or **Laminin γ -1 (B-4): sc-13144**, our highly recommended monoclonal alternatives to Laminin γ -1 (H-190).