SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin β-1 (C-19): sc-6018

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 and bind to other matrix macromolecules, and have unique and shared cell interactions mediated by Integrins, dystroglycan and cognate Laminin receptors. The human Laminin β-1 gene maps to chromosome 7q31.1 and is ubiquitously expressed in tissues that produce basement membranes.

CHROMOSOMAL LOCATION

Genetic locus: LAMB1 (human) mapping to 7q31.1; Lamb1 (mouse) mapping to 12 A2.

SOURCE

Laminin β-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Laminin β-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6018 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Laminin β-1 (C-19) is recommended for detection of Laminin β-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 β-1 (C-19) is also recommended for detection of Laminin β-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Laminin β-1 siRNA (h): sc-29387, Laminin β-1 siRNA (m): sc-35781, Laminin β-1 shRNA Plasmid (h): sc-29387-SH, Laminin β-1 shRNA Plasmid (m): sc-35781-SH, Laminin β-1 shRNA (h) Lentiviral Particles: sc-29387-V and Laminin β-1 shRNA (m) Lentiviral Particles: sc-35781-V.

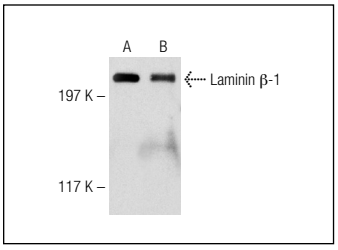
Molecular Weight of Laminin β-1: 220 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, A-431 whole cell lysate: sc-2201 or rat kidney extract: sc-2394.

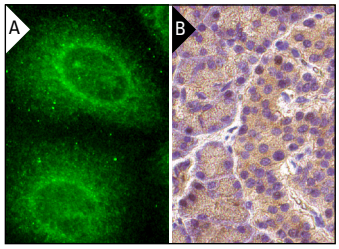
STORAGE

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

DATA



Laminin β-1 (C-19): sc-6018. Western blot analysis of Laminin β-1 expression in NIH/3T3 whole cell lysate (**A**) and in rat kidney tissue extract (**B**).



Laminin β-1 (C-19): sc-6018. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islet of langerhans and glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Luo, J., et al. 2001. Knock-in mice with a chimeric human/murine p53 gene develop normally and show wild-type p53 responses to DNA damaging agents: a new biomedical research tool. Oncogene 20: 320-328.
2. Chen, Q., et al. 2002. A novel mechanism for the regulation of amyloid precursor protein metabolism. J. Cell Biol. 158: 79-89.
3. Murase, S., et al. 2002. Deleted in colorectal carcinoma and differentially expressed integrins mediate the directional migration of neural precursors in the rostral migratory stream. J. Neurosci. 22: 3568-3579.
4. Fujigaki, Y., et al. 2002. Mechanisms and kinetics of Bowman's epithelial-myofibroblast transdifferentiation in the formation of glomerular crescents. Nephron 92: 203-212.
5. Bhrany, A.D., et al. 2006. Development of an esophagus acellular matrix tissue scaffold. Tissue Eng. 12: 319-330.
6. Derin, B.G., et al. 2007. Immunohistochemical localization of extracellular matrix proteins in developing lung tissues. Saudi Med. J. 28: 334-338.
7. Lappas, M., et al. 2009. Localisation and expression of FoxO1 proteins in human gestational tissues. Placenta 30: 256-262.

RESEARCH USE

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