SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin γ-2 (C-20): sc-7652

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.

CHROMOSOMAL LOCATION

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

SOURCE

Laminin γ-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Laminin γ-2 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-7652 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Laminin γ-2 (C-20) is recommended for detection of Laminin γ-2 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 γ-2 (C-20) is also recommended for detection of Laminin γ-2 in additional species, including equine, canine, bovine and porcine.

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.

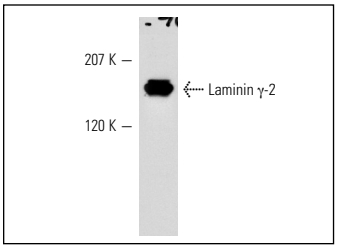
Molecular Weight of Laminin γ-2: 150 kDa.

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

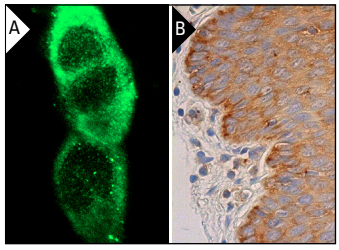
STORAGE

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

DATA



Laminin γ-2 (C-20): sc-7652. Western blot analysis of Laminin γ-2 expression in A-431 whole cell lysate.



Laminin γ-2 (C-20): sc-7652. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human vagina tissue showing cytoplasmic staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Robbins, P.B., et al. 2001. *In vivo* restoration of Laminin-5 3 β3 expression and function in junctional epidermolysis bullosa. Proc. Natl. Acad. Sci. USA 98: 5193-5198.
2. Klaffky, E., et al. 2001. Trophoblast-specific expression and function of the integrin α 7 subunit in the peri-implantation mouse embryo. Dev. Biol. 239: 161-175.
3. Sroka, I.C., et al. 2008. Simplified purification procedure of laminin-332 and laminin-511 from human cell lines. Biochem. Biophys. Res. Commun. 375: 410-413.
4. Grootenboer-Mignot, S., et al. 2009. Place of human amniotic membrane immunoblotting in the diagnosis of autoimmune bullous dermatoses. Br. J. Dermatol. 162: 743-750.
5. Sandoval, S., et al. 2009. CREB: A key regulator of normal and neoplastic hematopoiesis. Adv. Hematol. 2009: 634292.
6. Chang, Y.C., et al. 2009. Upregulation of γ-2 laminin-332 in the mouse ear vesicant wound model. J. Biochem. Mol. Toxicol. 23: 172-184.
7. 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.

RESEARCH USE

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