SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin-5 (P3H9-2): sc-13586

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Laminin-5 is a glycoprotein complex of three subunits (Laminin-α3, -β3, and -γ2) that influences cell adhesion (metastasis), signal transduction and keratinocyte differentiation. Laminin-5 localizes to the basal lamina underneath epithelia and mediates the anchoring of basal epithelial cells to the extracellular matrix (ECM). Differential processing of the subunits of the Laminin-5 precursor influences how this protein integrates into the ECM architecture.

CHROMOSOMAL LOCATION

Genetic locus: LAMA5 (human) mapping to 20q13.33.

SOURCE

Laminin-5 (P3H9-2) is a mouse monoclonal antibody raised against keratinocytes expressing Laminin-5 α3 chain of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Laminin-5 (P3H9-2) is available conjugated to agarose (sc-13586 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13586 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13586 PE), fluorescein (sc-13586 FITC), Alexa Fluor® 488 (sc-13586 AF488), Alexa Fluor® 546 (sc-13586 AF546), Alexa Fluor® 594 (sc-13586 AF594) or Alexa Fluor® 647 (sc-13586 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13586 AF680) or Alexa Fluor® 790 (sc-13586 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Laminin-5 (P3H9-2) is recommended for detection of Laminin-5 of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Laminin-5: 170 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

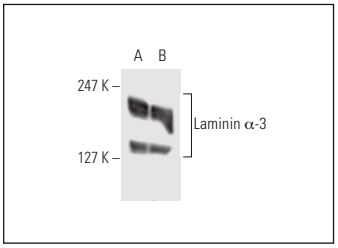
RECOMMENDED SUPPORT REAGENTS

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.

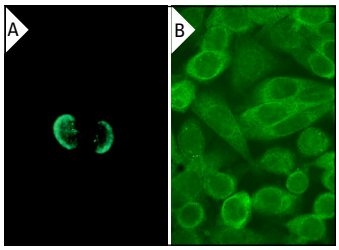
STORAGE

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

DATA



Western blot analysis of Laminin γ-2 subunit of Laminin-5 expression in A-431 conditioned media, immunopreceipitated with Laminin-5 (P3H9-2): sc-13586 (**A**) and Laminin-5 (P3E4): sc-13587 (**B**) and detected with Laminin γ-2 (B-2): sc-25341.



Laminin-5 (P3E4): sc-13586. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining (**A**). Laminin-5 (P3H9-2) Alexa Fluor® 488: sc-13586 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**B**).

SELECT PRODUCT CITATIONS

1. Spaderna, S., et al. 2006. A transient, EMT-linked loss of basement membranes indicates metastasis and poor survival in colorectal cancer. Gastroenterology 131: 830-840.
2. Biedermann, T., et al. 2010. Human eccrine sweat gland cells can reconstitute a stratified epidermis. J. Invest. Dermatol. 130: 1996-2009.
3. Hartmann-Fritsch, F., et al. 2013. A new model for preclinical testing of dermal substitutes for human skin reconstruction. Pediatr. Surg. Int. 29: 479-488.
4. Klar, A.S., et al. 2014. Tissue-engineered dermo-epidermal skin grafts prevascularized with adipose-derived cells. Biomaterials 35: 5065-5078.
5. Böttcher-Haberzeth, S., et al. 2015. Characterization of pigmented dermo-epidermal skin substitutes in a long-term *in vivo* assay. Exp. Dermatol. 24: 16-21.
6. Yan, Y., et al. 2018. Laminins in an *in vitro* anterior lens capsule model established using HLE B-3 cells. Mol. Med. Rep. 17: 5726-5733.
7. Zhou, S. and Robertson, D.M. 2018. Wide-field *in vivo* confocal microscopy of meibomian gland acini and rete ridges in the eyelid margin. Invest. Ophthalmol. Vis. Sci. 59: 4249-4257.
8. Wei, X., et al. 2018. Kojic acid inhibits senescence of human corneal endothelial cells via NFκB and p21 signaling pathways. Exp. Eye Res. 180: 174-183.
9. Yan, Y., et al. 2019. Laminin α4 overexpression in the anterior lens capsule may contribute to the senescence of human lens epithelial cells in age-related cataract. Aging 11: 2699-2723.

RESEARCH USE

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