SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin β-3 (A-6): sc-133178

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Laminins comprise a growing family of disulfide-linked heterotrimers consisting of three genetically distinct polypeptide chains, designated α, β and γ. A major component of the basal lamina, Laminins play a crucial role in providing a scaffolding upon which tissues are assembled and which serves as a physical barrier separating specialized tissues. During embryogenesis and early development, cells migrate along basement membranes, which are required for the polarization of cells. At least eight Laminin isoforms have been described: α-1, α-2, α-3, β-1, β-2, β-3, γ-1 and γ-2. Each isoform differs in the relative affinity with which it associates with individual Laminin receptors.

CHROMOSOMAL LOCATION

Genetic locus: LAMB3 (human) mapping to 1q32.2.

SOURCE

Laminin β-3 (A-6) is a mouse monoclonal antibody raised against amino acids 873-1172 mapping at the C-terminus of Laminin β-3 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 β-3 (A-6) is available conjugated to agarose (sc-133178 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-133178 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133178 PE), fluorescein (sc-133178 FITC), Alexa Fluor® 488 (sc-133178 AF488), Alexa Fluor® 546 (sc-133178 AF546), Alexa Fluor® 594 (sc-133178 AF594) or Alexa Fluor® 647 (sc-133178 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133178 AF680) or Alexa Fluor® 790 (sc-133178 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Laminin β-3 (A-6) is recommended for detection of Laminin β-3 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Laminin β-3 siRNA (h): sc-43151, Laminin β-3 shRNA Plasmid (h): sc-43151-SH and Laminin β-3 shRNA (h) Lentiviral Particles: sc-43151-V.

Molecular Weight of Laminin β-3: 140 kDa.

Positive Controls: SCC-4 whole cell lysate: sc-364363, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

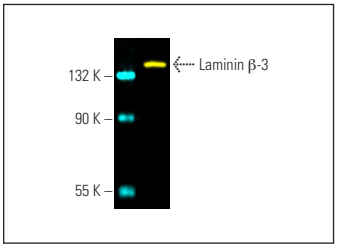
RESEARCH USE

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

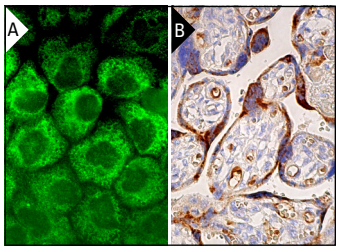
STORAGE

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

DATA



Laminin β-3 (A-6) Alexa Fluor® 488: sc-133178 AF488. Direct fluorescent western blot analysis of Laminin β-3 expression in A-431 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.



Laminin β-3 (A-6): sc-133178. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (**B**).

SELECT PRODUCT CITATIONS

1. Zhang, F., et al. 2014. SWATH™- and iTRAQ-based quantitative proteomic analyses reveal an overexpression and biological relevance of CD109 in advanced NSCLC. J. Proteomics 102: 125-136.
2. Young, C.D., et al. 2015. Activating PIK3CA mutations induce an epidermal growth factor receptor (EGFR)/extracellular signal-regulated kinase (ERK) paracrine signaling axis in basal-like breast cancer. Mol. Cell. Proteomics 14: 1959-1976.
3. 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.
4. Cassandri, M., et al. 2020. ZNF750 represses breast cancer invasion via epigenetic control of prometastatic genes. Oncogene 39: 4331-4343.
5. Altera, A., et al. 2021. The extracellular matrix complexity of idiopathic epiretinal membranes and the bilaminar arrangement of the associated internal limiting membrane in the posterior retina. Graefes Arch. Clin. Exp. Ophthalmol. 259: 2559-2571.
6. Zhang, J., et al. 2022. Genome-wide CRISPR/Cas9 library screen identifies PCMT1 as a critical driver of ovarian cancer metastasis. J. Exp. Clin. Cancer Res. 41: 24.
7. Rath, M., et al. 2022. Contact-dependent signaling triggers tumor-like proliferation of CCM3 knockout endothelial cells in co-culture with wild-type cells. Cell. Mol. Life Sci. 79: 340.
8. Shen, R., et al. 2022. Decoding the colorectal cancer ecosystem emphasizes the cooperative role of cancer cells, TAMs and CAFsin tumor progression. J. Transl. Med. 20: 462.

PROTOCOLS

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