SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin-R (16): sc-101517

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The Power to Question

BACKGROUND

Laminin receptor (Laminin-R) has a heterodimeric structure similar to that of receptors for other extracellular matrix proteins such as Fibronectin and Vitronectin. Incorporation of Laminin-R into lysosomal membranes makes it possible for lysosomes to attach to surfaces coated with Laminin. This and other properties identify Laminin-R as a member of the integrin family of cell adhesion receptors. The Laminin-R precursor is a polypeptide whose expression is consistently upregulated in aggressive carcinoma. The precursor, which is also identified as p40 ribosome-associated protein, appears to be a multifunctional protein involved in the translational machinery. Laminin-R (also known as colon carcinoma Laminin-binding protein) and is found at nine-fold higher levels in colon carcinoma than in adjacent normal colonic epithelium. Additionally, the level of the Laminin-R is higher in the lung cancer cell line than in the lung cell line.

REFERENCES

1. Gehlsen, K.R., et al. 1988. The human Laminin receptor is a member of the integrin family of cell adhesion receptors. Science 241: 1228-1229.
2. Yow, H.K., et al. 1988. Increased mRNA expression of a Laminin-binding protein in human colon carcinoma: complete sequence of a full length cDNA encoding the protein. Proc. Natl. Acad. Sci. USA 85: 6394-6398.
3. Bignon, C., et al. 1991. Genomic analysis of the 67 kDa Laminin receptor in normal and pathological tissues: circumstantial evidence for retroposon features. Genomics 10: 481-485.

CHROMOSOMAL LOCATION

Genetic locus: RPSA (human) mapping to 3p22.1.

SOURCE

Laminin-R (16) is a mouse monoclonal antibody raised against recombinant Laminin-R of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Laminin-R (16) is recommended for detection of Laminin-R 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Laminin-R siRNA (h): sc-35789, Laminin-R shRNA Plasmid (h): sc-35789-SH and Laminin-R shRNA (h) Lentiviral Particles: sc-35789-V.

Molecular Weight of Laminin-R cytosolic precursor: 37 kDa.

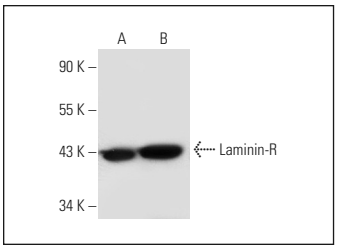
Molecular Weight of mature Laminin-R: 67 kDa.

Positive Controls: SW480 cell lysate: sc-2219, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

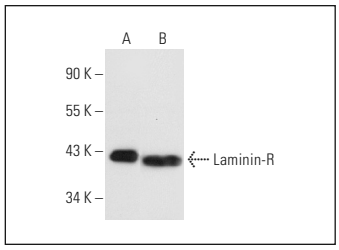
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Laminin-R (16): sc-101517. Western blot analysis of Laminin-R expression in 293T (**A**) and SW480 (**B**) whole cell lysates.



Laminin-R (16): sc-101517. Western blot analysis of Laminin-R expression in 293T (**A**) and Hep G2 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pellegrin, S., et al. 2012. Differential proteomic analysis of human erythroblasts undergoing apoptosis induced by epo-withdrawal. PLoS ONE 7: e38356.
2. Lee, S.K., et al. 2013. Profiling and semiquantitative analysis of the cell surface proteome in human mesenchymal stem cells. Anal. Bioanal. Chem. 405: 5501-5517.
3. Zanka, K., et al.2020. Epigallocatechin gallate induces upregulation of LDL receptor via the 67 kDa Laminin receptor-independent pathway in Hep G2 cells. Mol. Nutr. Food Res. 64: e1901036.

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.

PROTOCOLS

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

CONJUGATES

See **Laminin-R (H-2): sc-74515** for Laminin-R antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.