SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin-R (MLuC5): sc-59732



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.

CHROMOSOMAL LOCATION

Genetic locus: RPSA (human) mapping to 3p22.1; Rpsa (mouse) mapping to 9 F4.

SOURCE

Laminin-R (MLuC5) is a mouse monoclonal antibody raised against live N592 small cell lung carcinoma cell line of human origin.

PRODUCT

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

Laminin-R (MLuC5) is available conjugated to either phycoerythrin (sc-59732 PE) or fluorescein (sc-59732 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

Laminin-R (MLuC5) is recommended for detection of Laminin-R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for Laminin-R siRNA (h): sc-35789, Laminin-R siRNA (m): sc-37262, Laminin-R shRNA Plasmid (h): sc-35789-SH, Laminin-R shRNA Plasmid (m): sc-37262-SH, Laminin-R shRNA (h) Lentiviral Particles: sc-35789-V and Laminin-R shRNA (m) Lentiviral Particles: sc-37262-V.

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

Molecular Weight of mature Laminin-R: 67 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, K-562 whole cell lysate: sc-2203 or MCF7 whole cell lysate: sc-2206.

STORAGE

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

DATA





Laminin-R (MLuC5): sc-59732. Western blot analysis of Laminin-R expression in MCF7 $({\bm A})$ and PC-3 $({\bm B})$ whole cell lysates.

Laminin-R (MLuC5): sc-59732. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

- 1. Gundimeda, U., et al. 2012. Green tea polyphenols precondition against cell death induced by oxygen-glucose deprivation via stimulation of Laminin receptor, generation of reactive oxygen species, and activation of protein kinase C ϵ . J. Biol. Chem. 287: 34694-34708.
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- Gopalakrishna, R., et al. 2018. Laminin-1 induces endocytosis of 67KDa Laminin receptor and protects Neuroscreen-1 cells against death induced by serum withdrawal. Biochem. Biophys. Res. Commun. 495: 230-237.
- Gopalakrishna, R., et al. 2022. cAMP-induced decrease in cell-surface Laminin receptor and cellular prion protein attenuates amyloid-β uptake and amyloid-β-induced neuronal cell death. FEBS Lett. 596: 2914-2927.
- Gopalakrishna, R., et al. 2023. Flavonoid quercetin and its glucuronide and sulfate conjugates bind to 67-kDa laminin receptor and prevent neuronal cell death induced by serum starvation. Biochem. Biophys. Res. Commun. 671: 116-123.
- 9. Bae, J., et al. 2023. The anti-cancer effect of epigallocatechin-3-O-gallate against multiple myeloma cells is potentiated by 5,7-dimethoxyflavone. FEBS Open Bio 13: 2147-2156.

RESEARCH USE

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