

Laminin-R (A-7): sc-376295

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 multi-functional 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 (A-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 253-289 near the C-terminus of Laminin-R of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-376295 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Laminin-R (A-7) is recommended for detection of Laminin-R of mouse, rat and 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-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.

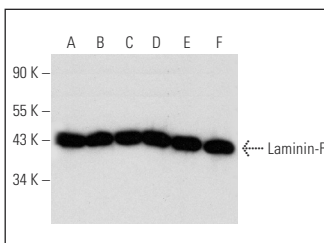
Molecular Weight of mature Laminin-R: 67 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Hep G2 cell lysate: sc-2227 or SW480 cell lysate: sc-2219.

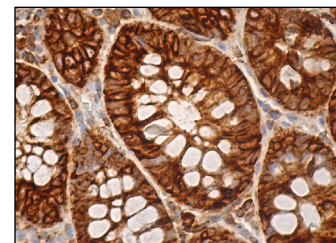
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Laminin-R (A-7): sc-376295. Western blot analysis of Laminin-R expression in SW480 (A), Hep G2 (B), NIH/3T3 (C), AMJ2-C8 (D), KNRK (E) and RBL-1 (F) whole cell lysates.



Laminin-R (A-7): sc-376295. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

- Wu, Y., et al. 2019. ITGA6 and RPSA synergistically promote pancreatic cancer invasion and metastasis via PI3K and MAPK signaling pathways. *Exp. Cell Res.* 379: 30-47.
- Azimi, S., et al. 2020. A role for fibroblast growth factor receptor 1 in the pathogenesis of *Neisseria meningitidis*. *Microb. Pathog.* 149: 104534.
- Blazejewski, S.M., et al. 2021. Rpsa signaling regulates cortical neuronal morphogenesis via its ligand, PEDF, and plasma membrane interaction partner, Itga6. *Cereb. Cortex.* E-published.

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.



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.