

Laminin-R (F-18): sc-21534

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.

REFERENCES

- 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.
- 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. Nat. Acad. Sci. USA* 85: 6394-6398.
- 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.
- Satoh, K., et al. 1992. Cloning of 67 kDa Laminin receptor cDNA and gene expression in normal and malignant cell lines of the human lung. *Cancer Lett.* 62: 199-203.
- Jackers, P., et al. 1996. Isolation from a multigene family of the active human gene of the metastasis-associated multifunctional protein 37LRP/p40 at chromosome 3p21.3. *Oncogene* 13: 495-503.

CHROMOSOMAL LOCATION

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

SOURCE

Laminin-R (F-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Laminin-R of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21534 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Laminin-R (F-18) 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 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).

Laminin-R (F-18) is also recommended for detection of Laminin-R in additional species, including equine, canine, bovine, porcine and avian.

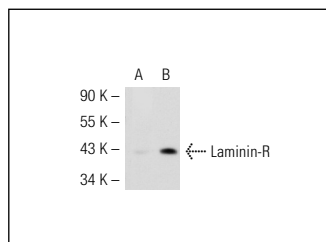
Suitable for use as control antibody for Laminin-R siRNA (h): sc-35789, Laminin-R siRNA (m): sc-37262, Laminin-R shRNA Plasmid (h): sc-35789-SH, Laminin-R shRNA Plasmid (m): sc-37262-SH, Laminin-R shRNA (h) Lentiviral Particles: sc-35789-V and Laminin-R shRNA (m) Lentiviral Particles: sc-37262-V.

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

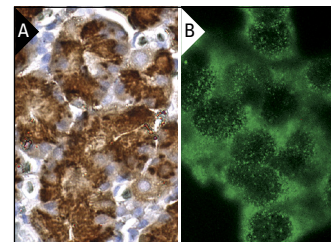
Molecular Weight of mature Laminin-R: 67 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Laminin-R (h4): 293T Lysate: sc-117344.

DATA



Laminin-R (F-18): sc-21534. Western blot analysis of Laminin-R expression in non-transfected: sc-117752 (A) and human Laminin-R transfected: sc-117344 (B) 293T whole cell lysates.



Laminin-R (F-18): sc-21534. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells (A) and immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Thepparit, C., et al. 2004. Serotype-specific entry of dengue virus into liver cells: identification of the 37-kilodalton/67-kilodalton high-affinity laminin receptor as a dengue virus serotype 1 receptor. *J. Virol.* 78: 12647-12656.
- Martin, B., et al. 2008. Biological pathways contributing to organ-specific phenotype of brain metastatic cells. *J. Proteome Res.* 7: 908-920.
- Scheiman, J., et al. 2010. Multiple functions of the 37/67-kd laminin receptor make it a suitable target for novel cancer gene therapy. *Mol. Ther.* 18: 63-74.

RESEARCH USE

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