SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-RPSA antibody

SL0900R

Product Name	RPSA
Chinese Name	层粘连蛋白受体 1 抗体
Alias	67kDa Laminin Receptor; 37LRP; P37-kDa laminin receptor precursor; MGr1-Ag; laminin receptor 1; 67kD, ribosomal protein SA; 34/67 kDa laminin receptor; 40S ribosomal protein SA; 67LR; Colon carcinoma laminin-binding protein; LAMBR; Laminin Receptor 1; LAMR 1; LAMR1; LRP; Multidrug resistance-associated protein MGr1-Ag; NEM/1CHD4; p40; Ribosomal Protein SA; 67kD laminin receptor; Laminin Receptor 1; Laminin R1; LNR1; RSSA_HUMAN.
Research Area	Tumour Apoptosis The cell membrane 受体
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Dog,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	32.7kDa
Cellular localization	The nucleus cytoplasmic The cell membrane Extracellular matrix
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human RPSA: 101-200/295
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

Product Detail

Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Many of the effects of laminin are mediated through interactions with cell surface receptors. These receptors include members of the integrin family, as well as non-integrin laminin-binding proteins. This gene encodes a high-affinity, non-integrin family, laminin receptor 1. This receptor has been variously called 67 kD laminin receptor, 37 kD laminin receptor precursor (37LRP) and p40 ribosome-associated protein. The amino acid sequence of laminin receptor 1 is highly conserved through evolution, suggesting a key biological function. It has been observed that the level of the laminin receptor transcript is higher in colon carcinoma tissue and lung cancer cell line than their normal counterparts. Also, there is a correlation between the upregulation of this polypeptide in cancer cells and their invasive and metastatic phenotype. Multiple copies of this gene exist, however, most of them are pseudogenes thought to have arisen from retropositional events. Two alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

Function:
Required for the assembly and/or stability of the 40S ribosomal subunit. Required for the processing of the 20S rRNA-precursor to mature 18S rRNA in a late step of the maturation of 40S ribosomal subunits. Also functions as a cell surface receptor for laminin. Plays a role in cell adhesion to the basement membrane and in the consequent activation of signaling transduction pathways. May play a role in cell fate determination and tissue morphogenesis. Acts as a PPP1R16B-dependent substrate of PPP1CA. Also acts as a receptor for several other ligands, including the pathogenic prion protein, viruses, and bacteria.

Subunit:
Monomer (37LRP) and homodimer (67LR). Component of the small ribosomal subunit. Mature ribosomes consist of a small (40S) and a large (60S) subunit. The 40S subunit contains about 33 different proteins and 1 molecule of RNA (18S). The 60S subunit contains about 49 different proteins and 3 molecules of RNA (28S, 5.8S and 5S). Interacts with RPS21. Interacts with several laminins including at least LAMB1. Interacts with MDK. Interacts with PRNP. The mature dimeric form interacts with PPP1R16B (via its fourth ankyrin repeat). Interacts with PPP1CA only in the presence of PPP1R16B.

Subcellular Location:
Cell membrane. Cytoplasm. Nucleus. Note=67LR is found at the surface of the plasma membrane, with its C-terminal laminin-binding domain accessible to extracellular

ligands. 37LRP is found at the cell surface, in the cytoplasm and in the nucleus. Co-localizes with PPP1R16B in the cell membrane.

Post-translational modifications:
Acylated. Acylation may be a prerequisite for conversion of the monomeric 37 kDa laminin receptor precursor (37LRP) to the mature dimeric 67 kDa laminin receptor (67LR), and may provide a mechanism for membrane association.
Cleaved by stromelysin-3 (ST3) at the cell surface. Cleavage by stromelysin-3 may be a mechanism to alter cell-extracellular matrix interactions.

Similarity:
Belongs to the ribosomal protein S2P family.

SWISS:
P08865

Gene ID:
3921

Database links:

Entrez Gene: 3921 Human

Entrez Gene: 100505031 Mouse

Entrez Gene: 16785 Mouse

Entrez Gene: 29236 Rat

Omim: 150370 Human

SwissProt: P08865 Human

SwissProt: P14206 Mouse

SwissProt: P38983 Rat

Unigene: 449909 Human

Unigene: 311972 Mouse

Unigene: 391708 Mouse

Unigene: 4071 Mouse

Unigene: 121972 Rat

Unigene: 161973 Rat

Unigene: 999 Rat

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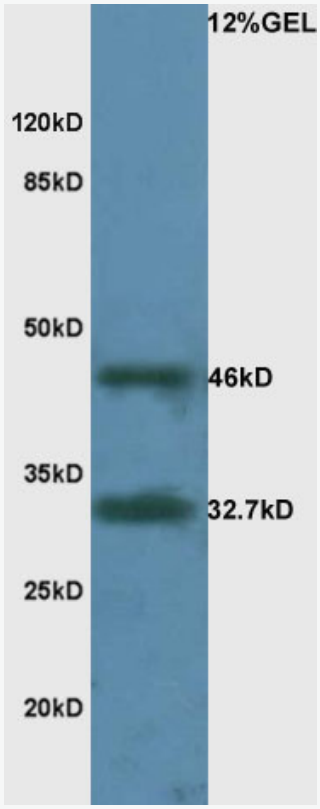
Product Picture



Sample:Brain(Mouse) Lysate at 30 ug

Primary: Anti-LAMR1 (SL0900R) at 1:300 dilution;

Secondary: HRP conjugated Goat Anti-Rabbit IgG(SL0295G-HRP) at 1: 5000 dilution;

Predicted band size : 32.7kD

Observed band size : 32.7kD

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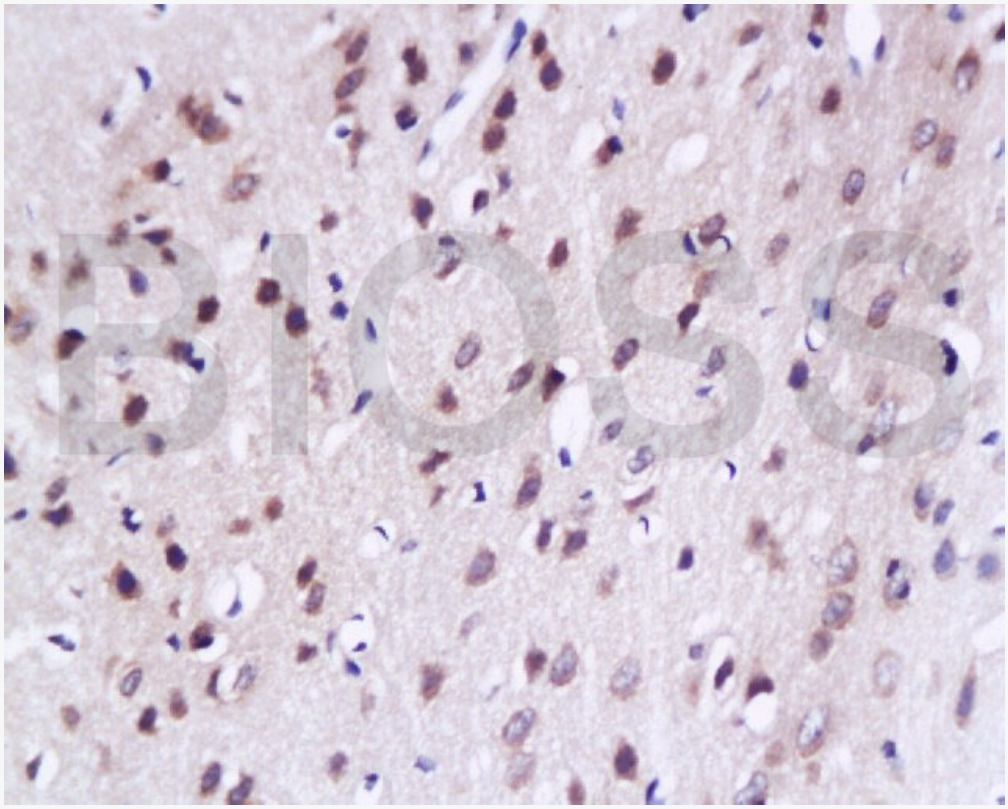

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-LAMR1 Polyclonal Antibody, Unconjugated(SL0900R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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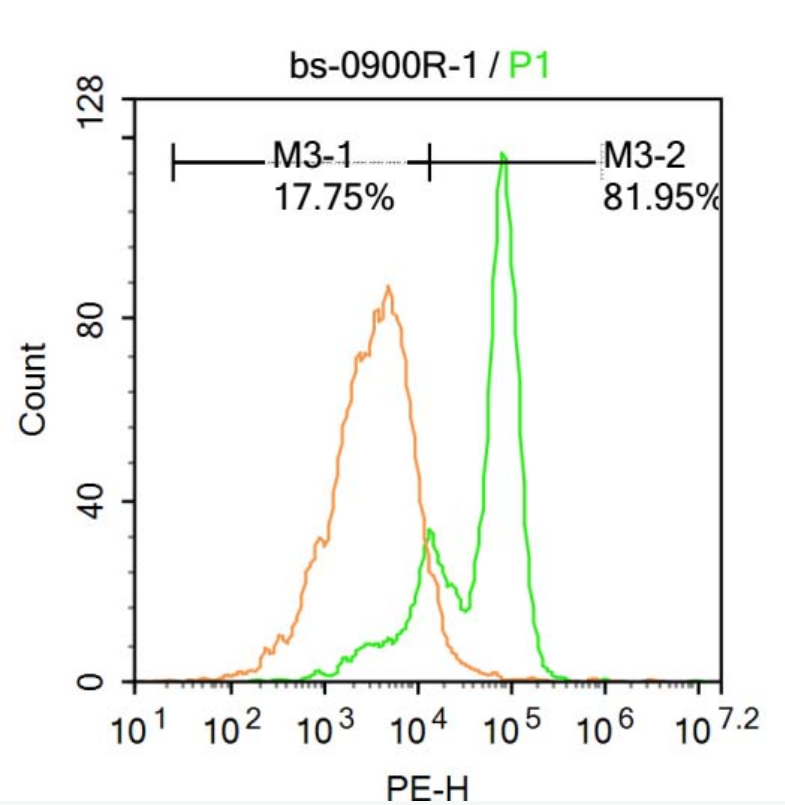

Molt-4 cells were fixed with 4% PFA for 10min at room temperature ,permeabilized with 90% ice-cold methanol for 20 min at -20℃, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with LAMR1 Antibody(SL0900R)at 1:500 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).

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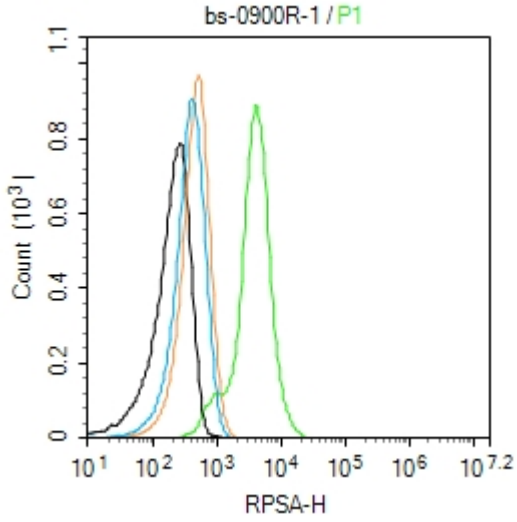

Blank control:Hela.

Primary Antibody (green line): Rabbit Anti-RPSA antibody (SL0900R)

Dilution: 1ug/Test;

Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 0.5ug/Test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.