

RPSA Antibody

Catalog # ASC11736

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P08865
Other Accession	NP_002286 , 9845502
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	32854
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RPSA antibody can be used for detection of RPSA by Western blot at 1 - 2 μ g/ml. Antibody can also be used for Immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	3921
Other Names	40S ribosomal protein SA {ECO:0000255 HAMAP-Rule:MF_03016}, 37 kDa laminin receptor precursor {ECO:0000255 HAMAP-Rule:MF_03016}, 37LRP {ECO:0000255 HAMAP-Rule:MF_03016}, 37/67 kDa laminin receptor {ECO:0000255 HAMAP-Rule:MF_03016}, LRP/LR {ECO:0000255 HAMAP-Rule:MF_03016}, 67 kDa laminin receptor {ECO:0000255 HAMAP-Rule:MF_03016}, 67LR {ECO:0000255 HAMAP-Rule:MF_03016}, Colon carcinoma laminin-binding protein, Laminin receptor 1 {ECO:0000255 HAMAP-Rule:MF_03016}, LamR {ECO:0000255 HAMAP-Rule:MF_03016}, Laminin-binding protein precursor p40 {ECO:0000255 HAMAP-Rule:MF_03016}, LBP/p40 {ECO:0000255 HAMAP-Rule:MF_03016}, Multidrug resistance-associated protein MGr1-Ag, NEM/1CHD4, RPSA {ECO:0000255 HAMAP-Rule:MF_03016}, LAMBR, LAMR1
Target/Specificity	RPSA; RPSA antibody is human, mouse and rat reactive.
Reconstitution & Storage	RPSA antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	RPSA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RPSA {ECO:0000255 HAMAP-Rule:MF_03016}
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Synonyms	LAMBR, LAMR1
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.
Cellular Location	Cell membrane. Cytoplasm. Nucleus {ECO:0000255 HAMAP-Rule:MF_03016}. 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 (By similarity) Colocalizes with PPP1R16B in the cell membrane. {ECO:0000255 HAMAP-Rule:MF_03016}

Background

The 40S ribosomal protein SA (RPSA) is a high-affinity, non-integrin family, laminin receptor, also known as 67 kDa laminin receptor or 37 kDa laminin receptor precursor (37LRP) (1). Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes and have been implicated in a variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis (2). RPSA is overexpressed in multiple types of cancers and has recently been shown to act as a cancer-specific death receptor (3).

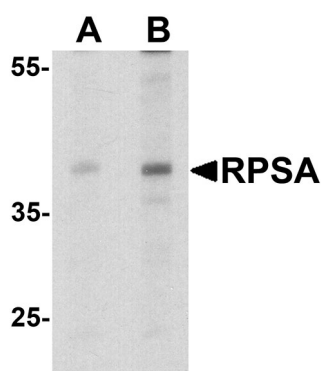
References

Jackers P, Minoletti F, Belotti D, et al. Isolation from a multigene family of the active human gene of the metastasis-associated 67kDa laminin binding protein 37LRP/p40 at chromosome 3p21.3. *Oncogene* 1996; 13:495-503.

Savino W and Silva-Barbosa SD. Laminin/VLA-6 interactions and T cell function. *Braz. J. Med. Biol. Res.* 1996; 29:1209-20.

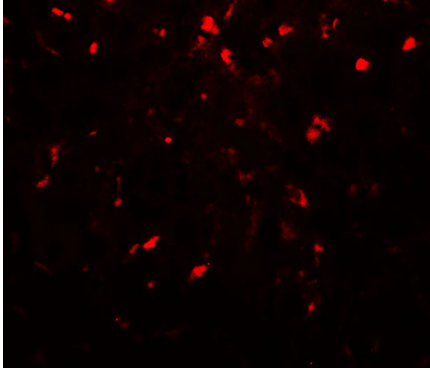
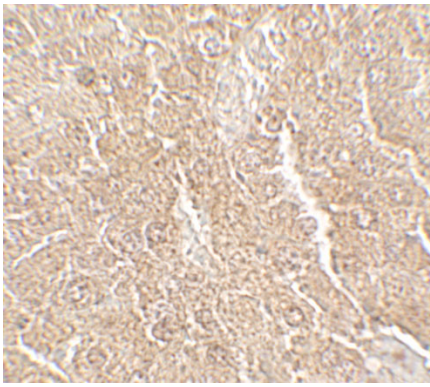
Kumazoe M, Sugihara K, Tsukamoto S, et al. 67-kDa laminin receptor increases cGMP to induce cancer-selective apoptosis. *J. Clin. Invest.* 2013; 123:787-99.

Images



Western blot analysis of RPSA in HepG2 cell lysate with RPSA antibody at (A) 1 and (B) 2 µg/ml.

Immunohistochemistry of RPSA in mouse liver tissue with RPSA antibody at 5 µg/mL.



Immunofluorescence of RPSA in mouse liver tissue with RPSA antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.