



Rabbit Anti-phospho-p107 (Ser975) antibody

SL5696R

Product Name:	phospho-p107 (Ser975)
Chinese Name:	磷酸化视网膜母细胞瘤样蛋白p107抗体
Alias:	RBL1(phospho Ser975); RBL1(phospho S975); Cellular protein 107; CP107; PRB1; RBL1; Retinoblastoma like protein 1; RBL1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	121kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human RBL1 around the phosphorylation site of Ser975:PG(P-S)PR
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The pocket protein family consists of three structurally and functionally related proteins, Rb (retinoblastoma), p107, and p130. This family of tumor suppressors function to regulate important cellular transcription factors, such as the E2F family. The E2F proteins regulate the expression of genes whose products are important for cell cycle

progression. The inactivation Rb is catalyzed by CDK phosphorylation thereby releasing E2F during the G1-S phase cellular progression. Unchecked inactivation of Rb in G1 phase has been indicated as a universal mechanism underlying cellular transformation . While Rb has been the most studied among the pocket proteins, p107 and p130 have also been shown to be key regulators of E2F. Several studies have also provided evidence that p107/p130 provide different functions in E2F regulation than does Rb. Rb, p107, and p130 each contain a conserved 'A/B pocket', which is the target of several viral oncoproteins, namely SV40 large T-antigen and adenovirus E1A. There are two isoforms.

Function:

Key regulator of entry into cell division. Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation. Recruits and targets histone methyltransferases SUV420H1 and SUV420H2, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Probably acts as a transcription repressor by recruiting chromatin-modifying enzymes to promoters. Potent inhibitor of E2F-mediated trans-activation. Forms a complex with adenovirus E1A and with SV40 large T antigen. May bind and modulate functionally certain cellular proteins with which T and E1A compete for pocket binding. May act as a tumor suppressor.

Subunit:

Interacts with SUV420H1, SUV420H2 and USP4 (By similarity). Component of the DREAM complex (also named LINC complex) at least composed of E2F4, E2F5, LIN9, LIN37, LIN52, LIN54, MYBL1, MYBL2, RBL1, RBL2, RBBP4, TFDP1 and TFDP2. The complex exists in quiescent cells where it represses cell cycle-dependent genes. It dissociates in S phase when LIN9, LIN37, LIN52 and LIN54 form a subcomplex that binds to MYBL2. Interacts with AATF. Interacts with KDM5A. Interacts with SV40 and JC virus large T antigens.

Subcellular Location:

Nucleus.

Post-translational modifications:

Exists in both phosphorylated and unphosphorylated forms, and T, but not E1A, binds only to the unphosphorylated form. Cell-cycle arrest properties are inactivated by phosphorylation on Thr-332, Ser-640, Ser-964 and Ser-975 by CDK4.

Similarity:

Belongs to the retinoblastoma protein (RB) family.

SWISS:

P28749

Gene ID:

5933

Database links:

[Entrez Gene: 5933](#)Human

[Entrez Gene: 19650](#)Mouse

[Entrez Gene: 680111](#)Rat

[Odim: 116957](#)Human

[SwissProt: P28749](#)Human

[SwissProt: Q64701](#)Mouse

[Unigene: 207745](#)Human

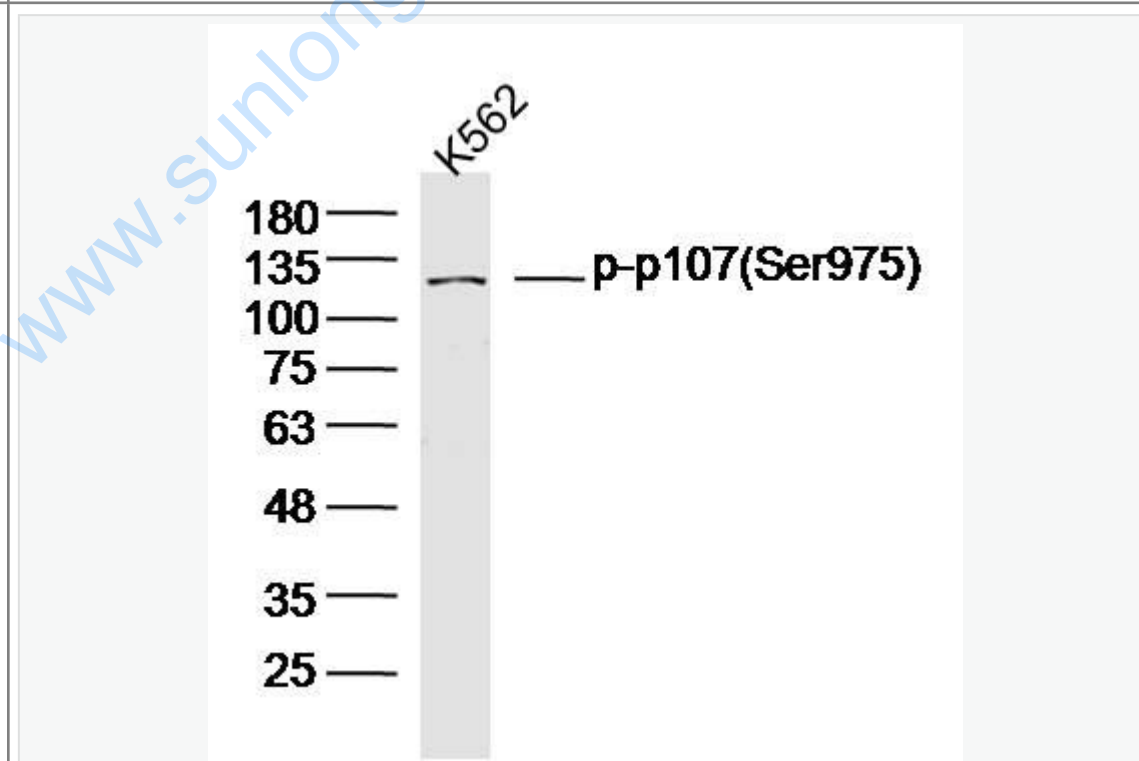
[Unigene: 244671](#)Mouse

[Unigene: 148725](#)Rat

Important Note:

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

Picture:



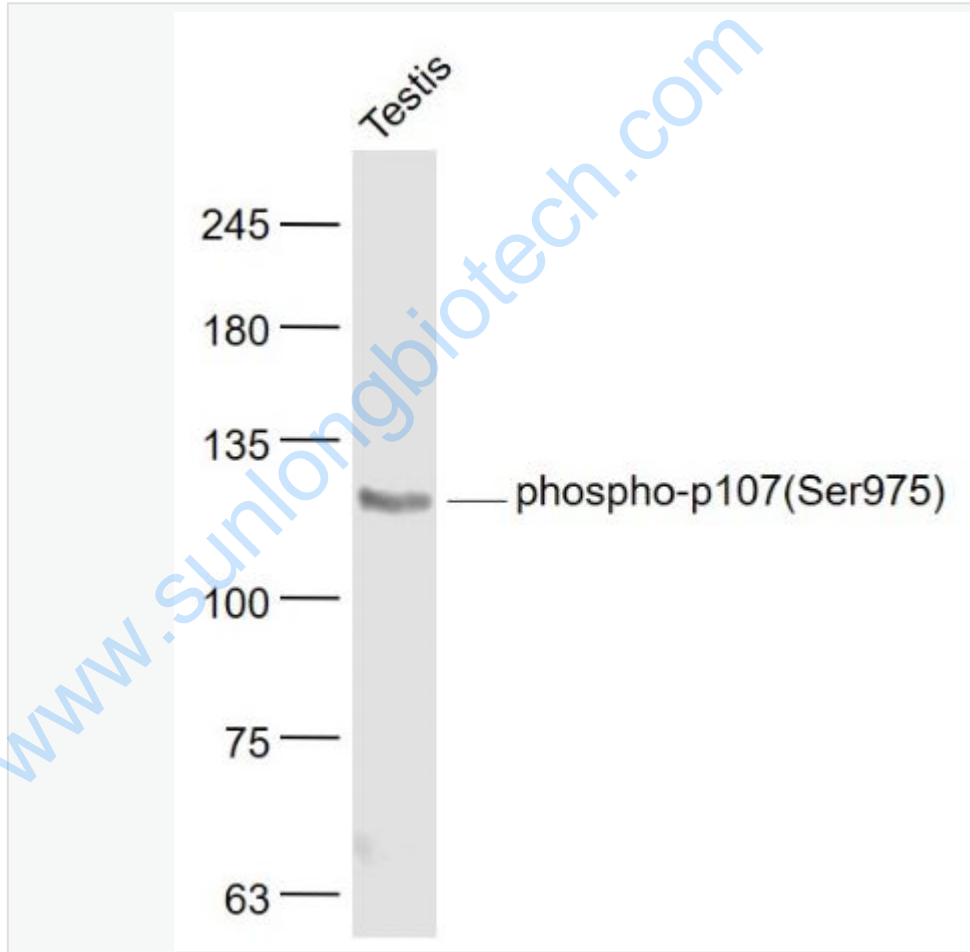
Sample: K562 Cell (Human) Lysate at 40 ug

Primary: Anti-phospho-p107(Ser975) (SL5696R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 121 kDa

Observed band size: 121 kDa



Sample:

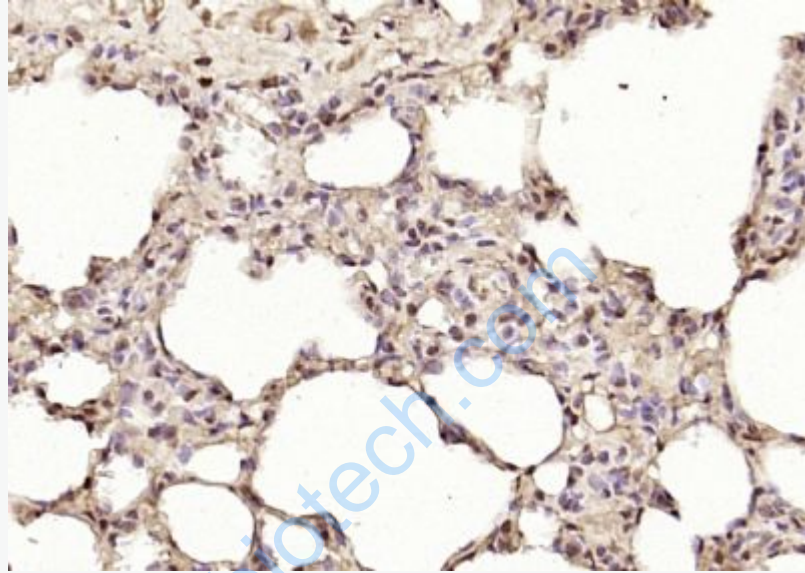
Testis (Rat) Lysate at 40 ug

Primary: Anti- phospho-p107(Ser975) (SL5696R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 121 kD

Observed band size: 121 kD



Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-p107 (Ser975)) Polyclonal Antibody, Unconjugated (SL5696R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.