

Product Name: p107 Rabbit Polyclonal Antibody**Catalog #: APRab15564**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	ICC/IF,ELISA
Reactivity	Human,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000
Molecular Weight	

Antigen Information

Gene Name	RBL1
Alternative Names	RBL1; Retinoblastoma-like protein 1; 107 kDa retinoblastoma-associated protein; p107; pRb1
Gene ID	5933.0
SwissProt ID	P28749
Immunogen	The antiserum was produced against synthesized peptide derived from human RBL1. AA range:335-384

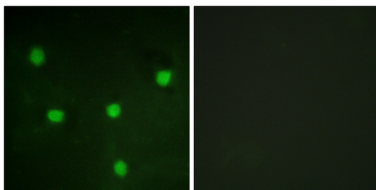
Background

The protein encoded by this gene is similar in sequence and possibly function to the product of the retinoblastoma 1 (RB1) gene. The RB1 gene product is a tumor suppressor protein that appears to be involved in cell cycle regulation, as it is phosphorylated in the S to M phase transition and is dephosphorylated in the G1 phase of the cell cycle. Both the RB1 protein and the product of this gene can form a complex with adenovirus E1A protein and SV40 large T-antigen, with the SV40 large T-antigen binding only to the unphosphorylated form of each protein. In addition, both proteins can inhibit the transcription of cell cycle genes containing E2F binding sites in their promoters. Due to the sequence and biochemical similarities with the RB1 protein, it is thought that the protein encoded by this gene may also be a tumor suppressor. Two transcript variants encoding different isoforms have 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. PTM: 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. Subunit: Interacts with SUV420H1 and SUV420H2 (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.

Research Area

Protein_Acetylation; Cell_Cycle_G1S; Cell_Cycle_G2M_DNA

Image Data



Immunofluorescence analysis of NIH/3T3 cells, using RBL1 Antibody. The picture on the right is blocked with the synthesized peptide.