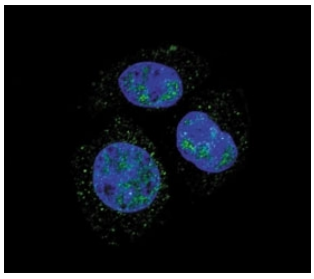
p-Rb1 Antibody (pS811) (F48447)

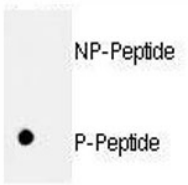
Catalog No.	Formulation	Size
F48447-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48447-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

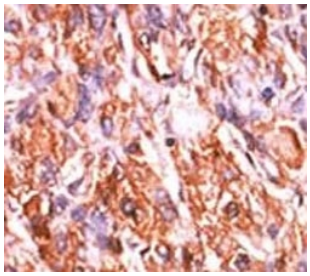
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P06400
Applications	Dot Blot : 1:500 IHC (Paraffin) : 1:50-1:100 Immunofluorescence : 1:10-1:50
Limitations	This p-Rb1 antibody is available for research use only.



Confocal immunofluorescent analysis of p-Rb1 antibody with HepG2 cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used as a nuclear counterstain (blue).



Dot blot analysis of p-Rb1 antibody. 50ng of nonphos-peptide or phos-peptide were adsorbed on their respective dots.



IHC analysis of FFPE human hepatocarcinoma tissue stained with the p-Rb1 antibody.

Description

Key regulator of entry into cell division that acts as a tumor suppressor. Promotes G0-G1 transition when phosphorylated by CDK3/cyclin-C. Acts as a transcription repressor of E2F1 target genes. The underphosphorylated, active form of Rb1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. 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 SUV39H1, SUV420H1 and SUV420H2, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. Mediates transcriptional repression by SMARCA4/BRG1 by recruiting a histone deacetylase (HDAC) complex to the c-FOS promoter. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a p-Rb1/HDAC1 repressor complex. Upon calcium influx, Rb1 is dephosphorylated by calcineurin, which leads to release of the repressor complex (By similarity). In case of viral infections, interactions with SV40 large T antigen, HPV E7 protein or adenovirus E1A protein induce the disassembly of Rb1/E2F1 complex thereby disrupting Rb1's activity. [UniProt]

Application Notes

Titration of the p-Rb1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This p-Rb1 antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS811 of human Retinoblastoma.

Storage

Aliquot the p-Rb1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.