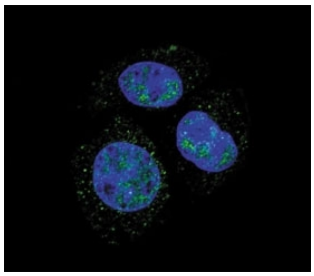
Phospho-RB1 Ser811 Antibody / RB1 Phospho Ser811 Polyclonal Antibody (F48447)

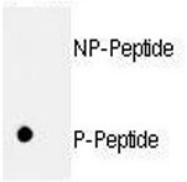
Catalog No.	Formulation	Size
F48447-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48447-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

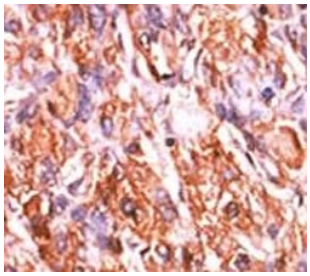
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P06400
Applications	Dot blot: 1:500 IHC (Paraffin): 1:50-1:100 Immunofluorescence: 1:10-1:50
Limitations	This Phospho-RB1 Ser811 Antibody / RB1 Phospho Ser811 Polyclonal Antibody is available for research use only.



Confocal immunofluorescent analysis of Phospho-RB1 Ser811 Antibody with HepG2 cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used as a nuclear counterstain (blue).



Phospho-RB1 Ser811 Antibody Dot Blot Analysis. Dot blot analysis of the RB1 Phospho Ser811 Polyclonal Antibody using non-phosphorylated (NP-Peptide) and phosphorylated (P-Peptide) RB1 peptides, with 50 ng of each peptide applied to separate spots. A positive signal is observed with the phosphorylated peptide, while no detectable signal is observed with the non-phosphorylated peptide, demonstrating preferential recognition of the Ser811-phosphorylated peptide.



IHC analysis of FFPE human hepatocarcinoma tissue stained with the Phospho-RB1 Ser811 Antibody.

Description

Phospho-RB1 Ser811 Antibody / RB1 Phospho Ser811 Polyclonal Antibody recognizes retinoblastoma protein phosphorylated at serine 811, a regulatory residue within the C-terminal region of RB1. Retinoblastoma protein is a tumor suppressor that controls cell cycle progression through interactions with E2F transcription factors and other regulatory proteins. Its activity is influenced by phosphorylation at multiple serine and threonine residues, allowing growth-promoting signals to modify its interactions with proteins involved in transcriptional repression and DNA replication.

RB1 is a central component of the regulatory machinery governing the transition from G1 to S phase. In its growth-suppressive state, RB1 associates with E2F transcription factors and limits expression of genes required for DNA synthesis. Activation of cyclin-dependent kinases promotes phosphorylation at several regulatory sites, producing structural and functional changes that influence RB1-E2F interactions. These modifications contribute to the coordinated release of cell cycle restrictions as cells respond to mitogenic stimulation.

Ser811 is located near Ser807 within the C-terminal regulatory region of RB1. These neighboring residues are frequently examined together in studies of RB1 phosphorylation, particularly because phosphorylation within this region can influence interactions involving the RB pocket domain and associated regulatory proteins. However, phosphorylation at Ser811 should not be interpreted as an independent measure of complete RB1 inactivation. The functional consequences of RB1 phosphorylation depend on the combination of modified residues, cellular context, and the activities of upstream kinases and phosphatases.

Altered regulation of RB1 phosphorylation is associated with disruption of cell cycle control in cancer. Increased cyclin-dependent kinase activity, loss of CDK inhibitors, and changes in upstream growth signaling can contribute to inappropriate RB1 phosphorylation and E2F-dependent transcription. Phosphorylation-site-specific analysis helps distinguish changes in RB1 regulatory state from changes in total protein abundance. NSJ Bioreagents offers this Phospho-RB1 Ser811 Antibody for investigating site-specific RB1 phosphorylation and its relationship to cell cycle signaling, tumor suppressor regulation, and cellular proliferation.

Explore our Retinoblastoma Antibody FCD-18, a rabbit monoclonal antibody targeting RB1, for an additional option with Western blot, immunohistochemistry, and immunofluorescence validation.

Application Notes

Titration of the Phospho-RB1 Ser811 Antibody / RB1 Phospho Ser811 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-RB1 Ser811 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 Phospho-RB1 Ser811 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-Rb Ser811 antibody, Phospho-Retinoblastoma Ser811 antibody, Phospho-pRb Ser811 antibody, Phosphorylated RB1 Ser811 antibody, Retinoblastoma Protein Phospho Ser811 antibody

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