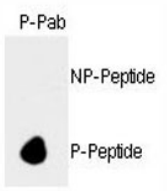
Phospho-RB1 Ser788 Antibody / RB1 Phospho Ser788 Polyclonal Antibody (F48446)

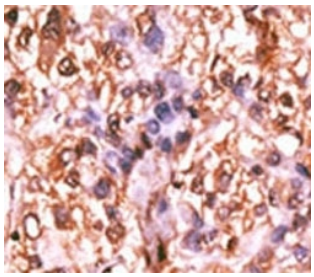
Catalog No.	Formulation	Size
F48446-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48446-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Species Reactivity	Human
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
Limitations	This Phospho-RB1 Ser788 Antibody / RB1 Phospho Ser788 Polyclonal Antibody is available for research use only.



Phospho-RB1 Ser788 Antibody Dot Blot Analysis. Dot blot analysis of the RB1 Phospho Ser788 Polyclonal Antibody using phosphorylated (P-Peptide) and non-phosphorylated (NP-Peptide) RB1 peptides, with 50 ng of each peptide applied to separate spots. A distinct signal is observed with the phosphorylated peptide, while no detectable signal is observed with the non-phosphorylated peptide, demonstrating preferential recognition of the Ser788-phosphorylated peptide.



IHC analysis of FFPE human hepatocarcinoma tissue stained with the Phospho-RB1 Ser788 Antibody.

Description

Phospho-RB1 Ser788 Antibody / RB1 Phospho Ser788 Polyclonal Antibody recognizes retinoblastoma protein phosphorylated at serine 788, a regulatory residue within the C-terminal region of RB1. Encoded by the RB1 gene, retinoblastoma protein is a tumor suppressor that coordinates cell cycle progression through interactions with E2F transcription factors and other proteins involved in transcriptional control. RB1 belongs to the pocket protein family, which also includes RBL1 and RBL2. Its activity is regulated by phosphorylation at multiple serine and threonine residues, allowing extracellular growth signals and intracellular kinase activity to influence cell cycle decisions.

Ser788 is located near several other regulatory phosphorylation sites within the C-terminal portion of RB1, including Ser780 and Ser795. This region contributes to interactions that influence the conformation and regulatory activity of retinoblastoma protein. Cyclin-dependent kinases phosphorylate RB1 at multiple sites during cell cycle progression, producing changes in protein interactions and transcriptional regulation. Although Ser788 is a recognized phosphorylation site, its individual functional consequences are less extensively characterized than those of certain other RB1 residues. Phosphorylation at this position should therefore be interpreted within the broader context of RB1 modification rather than as an independent indicator of complete protein inactivation.

During G1 progression, cyclin D-associated CDK4/6 and cyclin E-associated CDK2 participate in the phosphorylation-dependent regulation of RB1. These events influence the ability of retinoblastoma protein to restrict E2F-dependent transcription and help coordinate entry into S phase. Different phosphorylation sites can affect distinct molecular interactions, and their combined regulatory effects depend on cellular conditions and the activities of upstream signaling pathways. Site-specific phosphorylation analysis is consequently valuable for distinguishing changes in RB1 regulatory state from changes in total protein abundance.

Alterations in the RB1 pathway contribute to abnormal proliferation in many cancers. RB1 gene mutations, increased cyclin-dependent kinase activity, cyclin overexpression, and loss of CDK inhibitors can disrupt normal control of the G1/S transition. The phosphorylation status of retinoblastoma protein is also relevant to studies of CDK4/6 inhibition, although individual phosphosites may respond differently to changes in kinase signaling. Examining Ser788 alongside other regulatory residues can provide a more detailed understanding of RB1 phosphorylation patterns and their relationship to cellular proliferation. This Phospho-RB1 Ser788 Antibody supports investigation of site-specific retinoblastoma phosphorylation and the signaling mechanisms that regulate tumor suppressor activity.

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 Ser788 Antibody / RB1 Phospho Ser788 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-RB1 Ser788 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS788 of human Rb.

Storage

Aliquot the Phospho-RB1 Ser788 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-Rb Ser788 antibody, Phospho-Retinoblastoma Ser788 antibody, Phospho-pRb Ser788 antibody, Phosphorylated RB1 Ser788 antibody, Retinoblastoma Protein Phospho Ser788 antibody

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