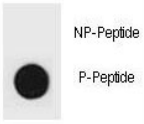
Phospho-p27Kip1 Ser83 Antibody / Phospho-CDKN1B Ser83 Polyclonal Antibody (F48818)

Catalog No.	Formulation	Size
F48818-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48818-0.08ML	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	P46527
Applications	Dot blot: 1:500
Limitations	This Phospho-p27Kip1 Ser83 Antibody / Phospho-CDKN1B Ser83 Polyclonal Antibody is available for research use only.



Phospho-p27Kip1 Ser83 Antibody Dot Blot with Phosphorylated and Nonphosphorylated Peptides. Dot blot analysis using the Phospho-CDKN1B Ser83 Polyclonal Antibody to assess recognition of a synthetic p27Kip1 peptide phosphorylated at Ser83 compared with its nonphosphorylated counterpart. Each dot contained 50 ng of peptide.

Description

The Phospho-p27Kip1 Ser83 Antibody / Phospho-CDKN1B Ser83 Polyclonal Antibody recognizes cyclin-dependent kinase inhibitor 1B phosphorylated at serine 83. Encoded by CDKN1B, p27Kip1 belongs to the Cip/Kip family of cell cycle regulatory proteins, which also includes p21 and p57. The protein helps control progression through the G1 phase by regulating cyclin-dependent kinase activity. Its interactions with cyclin E-CDK2 and cyclin A-CDK2 complexes restrict cell cycle progression, while association with cyclin D-CDK4/6 complexes contributes to their assembly and regulation.

p27 activity is controlled through multiple post-translational modifications, particularly phosphorylation events that

influence protein stability, intracellular localization, and interactions with regulatory partners. Phosphorylation at threonine 187 promotes recognition by the SCF-SKP2 ubiquitin ligase complex, leading to ubiquitination and proteasomal degradation. Other regulatory sites, including threonine 157, threonine 198, and several tyrosine residues, participate in signaling mechanisms that influence p27 function. These modifications help coordinate cell cycle entry with extracellular growth signals and intracellular regulatory pathways.

Serine 83 is located within the N-terminal portion of human p27Kip1, a region involved in interactions with cyclin-CDK complexes. Although phosphorylation-dependent regulation of p27 is well established, the specific physiological consequences of Ser83 phosphorylation remain less extensively characterized than those of several other regulatory residues. Detection of this modification may contribute to investigations of CDKN1B phosphorylation patterns, but its presence alone does not establish changes in CDK activity, protein stability, or cellular proliferation.

CDKN1B is an important regulator of cellular quiescence, differentiation, and tumor suppression. Reduced nuclear p27 expression has been associated with increased proliferative activity and unfavorable outcomes in several malignancies. Cytoplasmic p27 can also influence actin organization and cell migration through interactions with Rho family signaling pathways. These distinct functions make phosphorylation-dependent regulation an important aspect of p27 biology. Phospho-specific antibodies can help distinguish individual modified forms from total protein expression, although their experimental utility depends on validation for the intended application. This Ser83-directed reagent has been evaluated using phosphorylated and nonphosphorylated peptides by dot blot, providing a defined basis for assessing recognition of the targeted modification.

For additional research options, explore our highly published p27Kip1 Antibody SX53G8, a well-established monoclonal antibody targeting CDKN1B.

Application Notes

Titration of the Phospho-p27Kip1 Ser83 Antibody / Phospho-CDKN1B Ser83 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This phospho-p27Kip1 antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS83 of human p27Kip1.

Storage

Aliquot the phospho-p27Kip1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-CDKN1B Ser83 antibody, Phospho-p27 S83 antibody, p27Kip1 phospho-Ser83 antibody, Phospho-KIP1 Ser83 antibody

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