



Affinity-Purified Rabbit Anti-phospho-CHK1 (S345) Antibody

Specificity: Human phospho-CHK1 (S345)	Size: 0.1 mg
Source: Rabbit	IgG Type: rabbit IgG

Background:

Required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. May also negatively regulate cell cycle progression during unperturbed cell cycles. Recognizes the substrate consensus sequence [R-X-X-S/T]. Binds to and phosphorylates CDC25A, CDC25B and CDC25C. Phosphorylation of CDC25A at 'Ser-178' and 'Thr-507' and phosphorylation of CDC25C at 'Ser-216' creates binding sites for 14-3-3 proteins which inhibit CDC25A and CDC25C. Phosphorylation of CDC25A at 'Ser-76', 'Ser-124', 'Ser-178', 'Ser-279' and 'Ser-293' promotes proteolysis of CDC25A. Inhibition of CDC25 activity leads to increased inhibitory tyrosine phosphorylation of CDK-cyclin complexes and blocks cell cycle progression.

Other Name: Serine/threonine-protein kinase Chk1

Specificity:

Human: Positive

Application : For western blot analysis, an antibody concentration of 1 µg/ml is recommended

ELISA	Positive
Western blotting	Positive 1 mg/ml
Immunohistochemistry	Positive
Immunoprecipitation	Positive
Flow cytometry	Positive

Isotype: Rabbit IgG

Description: This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding the phosphorylation sites.

Storage: Upon reconstitution, maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C to -70°C. Lyophilized samples are stable for twelve months from the date of receipt when stored at -20°C to -70°C

Format: Purified rabbit monoclonal antibody supplied in PBS with 0.02% (W/V) sodium azide. This antibody is first purified by protein G affinity chromatography. Then, the antibody fraction is peptide affinity purified in a 2-step procedure with the control and phosphorylated peptides. The phospho-specific antibody is eluted with high and low salt and neutralized immediately, followed by dialysis against PBS.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

References:

- [Surgenor A.E.](#); "Structure-based design of novel Chk1 inhibitors: insights into hydrogen bonding and protein-ligand affinity."; *J. Med. Chem.* 48:4332-4345(2005).
- [Zhou B.-B.S.](#); "Structural basis for Chk1 inhibition by UCN-01."; *J. Biol. Chem.* 277:46609-46615(2002).
- [O'Connor P.M.](#); "The 1.7 Å crystal structure of human cell cycle checkpoint kinase Chk1: implications for Chk1 regulation."; *Cell* 100:681-692(2000).