

Product datasheet for **AP12592PU-N**

Chk1 (CHEK1) pSer317 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1/1,000. Western Blot: 1/100-1/500. Dot Blot: 1/500. Immunohistochemistry: 1/50-1/100.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S317 of human CHK1.
Specificity:	This antibody detects CHK1 pSer317.
Formulation:	PBS with 0.09% (W/V) Sodium Azide as preservative State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Protein G Affinity Chromatography. Then, the antibody fraction is peptide affinity purified in a 2-step procedure with control and phosphorylated peptides. The phospho-specific antibody is eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	checkpoint kinase 1
Database Link:	Entrez Gene 1111 Human O14757

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Background:

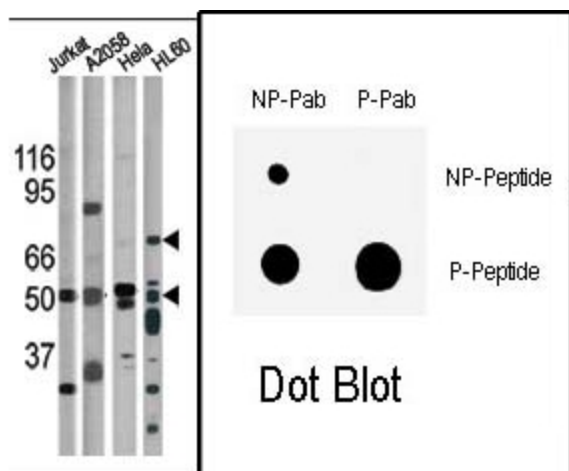
Checkpoint pathways control the order and timing of cell cycle transitions and ensure that critical events, such as DNA replication and chromosome segregation, are completed with high fidelity. The *S. pombe* Chk1 gene encodes a protein kinase that is required for the DNA damage checkpoint. Antibodies against CHK1 recognized a 54-kD protein on immunoblots of mammalian cell extracts. However, CHK1 is modified in response to DNA damage. In vitro, CHK1 directly phosphorylated a regulator of CDC2 tyrosine phosphorylation, CDC25C. In response to DNA damage, CHK1 phosphorylates and inhibits CDC25C, thus preventing activation of the CDC2-cyclin B complex and mitotic entry. CHK1 directly phosphorylates CDC25A during an unperturbed cell cycle, and that phosphorylation of CDC25A by CHK1 is required for cells to delay cell cycle progression in response to double-strand DNA breaks.

Synonyms:

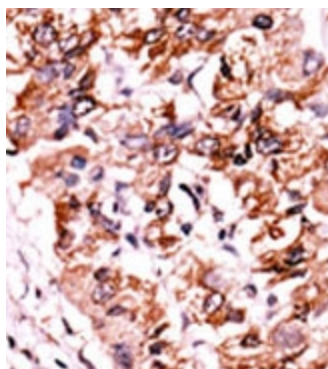
CHEK1, CHEK-1

Note:

Molecular weight: 54420 Da

Product images:


(LEFT) The anti-Phospho-CHK1-S317 Pab is used in Western blot for detection in, from left to right, Jurkat, A2058, Hela, and HL60 tissue lysates. (RIGHT) Dot blot analysis of anti-Phospho-CHK1-S317 Antibody on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibodies working concentration was 0.5ug per ml.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.