Product Datasheet

Phospho-Chk1 (S296) Antibody

Catalog No: CY5677 Reactivity: Human Isotype: Rabbit IgG Applications: WB



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Information

UniProt ID: O14757

All Names: Checkpoint, S. pombe, homolog of, 1; CHEK1; CHK1; CHK1 checkpoint homolog (S. pombe);

Serine/threonine-protein kinase Chk1;

Form: Liquid

Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Purity: Affinity-chromatography **Immunogen:** A synthesized peptide

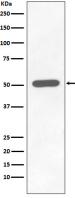
Molecular Wt.: 54 kDa

Application

WB: 1:500~1:2000

Background

Chk1 kinase acts downstream of ATM/ATR kinase and plays an important role in DNA damage checkpoint control, embryonic development, and tumor suppression. Activation of Chk1 involves phosphorylation at Ser317 and Ser345 by ATM/ATR, followed by autophosphorylation of Ser296. Activation occurs in response to blocked DNA replication and certain forms of genotoxic stress. While phosphorylation at Ser345 serves to localize Chk1 to the nucleus following checkpoint activation, phosphorylation at Ser317 along with site-specific phosphorylation of PTEN allows for re-entry into the cell cycle following stalled DNA replication. Chk1 exerts its checkpoint mechanism on the cell cycle, in part, by regulating the cdc25 family of phosphatases. Chk1 phosphorylation of cdc25A targets it for proteolysis and inhibits its activity through 14-3-3 binding.



Western blot analysis of Phospho-Chk1 (S296) expression in HEK293 cell lysate Treated with Calyculin.

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