



CHEK1 (Ab-317) Antibody

Product Code	CSB-PA245196
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O14757
Immunogen	Peptide sequence around aa.315~319 (S-S-S-Q-P) derived from Human Chk1.
Raised In	Rabbit
Species Reactivity	Human,Rat
Specificity	The antibody detects endogenous level of total Chk1 protein.
Tested Applications	ELISA,WB,IHC;WB:1:500-1:1000,IHC:1:50-1:200

Relevance

Chek1 is a protein kinase that inhibits mitotic entry after DNA damage, required for the DNA damage checkpoint and is strongly similar to murine Chek1. 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 mouse and human proteins share 90% sequence identity through the protein kinase domains. The sequence of the 476-amino acid human Chek1 protein is 29%, 40%, and 44% identical to those of the fission yeast Chek1, *C. elegans* Chek1, and *Drosophila* 'grapes' (Grp) proteins, respectively. Chek1 is expressed ubiquitously as an approximately 2.4-kb mRNA, with the most abundant expression in thymus, testis, small intestine, and colon. The protein has altered mobility when isolated from cells treated with ionizing radiation, indicating that Chek1 is modified in response to DNA damage. In vitro, Chek1 directly phosphorylates a regulator of CDC2 tyrosine phosphorylation, CDC25C. In response to DNA damage, Chek1 phosphorylates and inhibits CDC25C, thus preventing activation of the CDC2-Cyclin-B complex and mitotic entry

Zhang YW, et al. (2005) Mol Cell; 19(5): 607-18.

Bhounik A, et al. (2005) Mol Cell; 18(5): 577-87.

Rocha S, et al. (2005) EMBO J.

Clarke CA, et al. (2005) Biochem J.

Yu X, et al. (2004) Mol Cell Biol; 24(21): 9478-86.

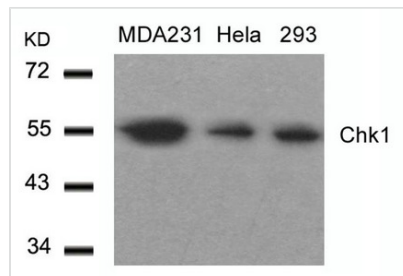
Form	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Clonality	Polyclonal
Alias	CHEK1
Product Type	Polyclonal Antibody



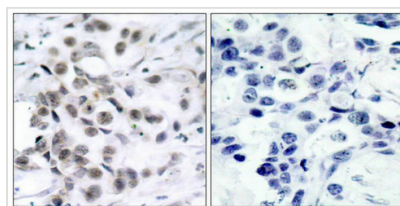
Species Homo sapiens (Human)

Target Names CHEK1

Image



Western blot analysis of extracts from MDA231, Hela and 293 cells using Chk1(Ab-317) Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Chk1(Ab-317) Antibody(left) or the same antibody preincubated with blocking peptide(right).