

Basic Information

Product Name	Anti-CHEK2 Antibody	
Gene Name	CHEK2	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, ICC/IF, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human CHEK2 recombinant protein (Position: M1-R474).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	61 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000

Storage

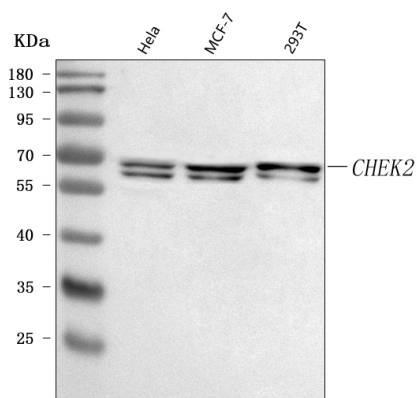
12 months from date of receipt, -20°C as supplied.

Background Information

CHK2, a protein kinase that is activated in response to DNA damage, is involved in cell cycle arrest. Mapped on 22q12.1, CHK2 has a potential regulatory region rich in SQ and TQ amino acid pairs. It regulates BRCA1 function after DNA damage by phosphorylating serine-988 of BRCA1. Additionally, CHK2 can be modified by phosphorylation and activated in response to ionizing radiation, and can be also modified in response to hydroxyurea treatment. Furthermore, oligomerization of CHEK2 increases the efficiency of transautophosphorylation, resulting in the release of active CHEK2 monomers that proceed to enforce checkpoint control in irradiated cells. Moreover, CHK2 is a tumor suppressor gene conferring predisposition to sarcoma, breast cancer, and brain tumors, and that their observations provided a link between the central role of p53 inactivation in human cancer and the well-defined G2 checkpoint in yeast. There is a wide expression of small amounts of CHK2 mRNA with larger amounts in human testis, spleen, colon,

and peripheral blood leukocytes.

Selected Validation Data



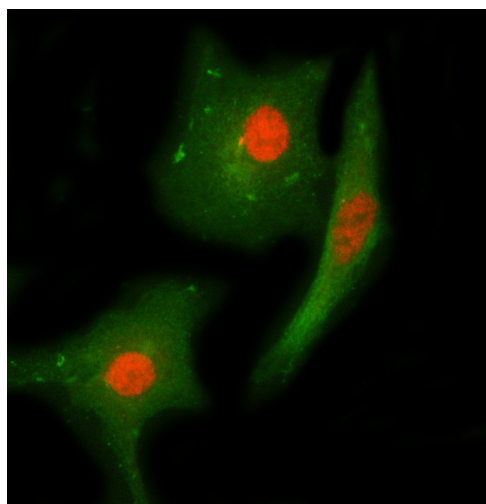
Western blot analysis of anti-CHEK2 antibody (A00277-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human MCF-7 whole cell lysates,

Lane 3: human 293T whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CHEK2 antigen affinity purified polyclonal antibody (A00277-2) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CHEK2 at approximately 62 kDa. The expected band size for CHEK2 is at 61 kDa.



ICC/IF analysis of CHEK2 using anti-CHEK2 antibody (A00277-2) and anti-Beta Tubulin antibody (M01857-3).

CHEK2 was detected in an immunocytochemical section of A549 cells. Cy3-Conjugated Anti-rabbit IgG Secondary Antibody (Red) (Catalog # BA1032) and Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (Green) (Catalog # BA1126) were used as secondary antibody.