

Anti-Chk2/CHEK2 Antibody

Catalog Number: PA1202

About CHEK2

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.

Overview

Product Name	Anti-Chk2/CHEK2 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Chk2/CHEK2 Antibody catalog # PA1202. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O96017

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Chk2, different from the related rat and mouse sequences by one amino acid.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse</p>

Anti-Chk2/CHEK2 Antibody (PA1202) Images

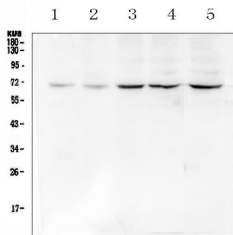


Figure 1. Western blot analysis of Chk2 using anti-Chk2 antibody (PA1202).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human MDA-MB-231 whole cell lysates,

Lane 2: human MDA-MB-453 whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human K562 whole cell lysates,

Lane 5: human Caco-2 whole cell lysates,

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Chk2 antigen affinity purified polyclonal antibody (Catalog # PA1202) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Chk2 at approximately 69KD. The expected band size for Chk2 is at 61KD.

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