

## Anti-Phospho-Chk2 (Thr68) Antibody (7T986)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	7T986
Purification:	Protein A

## Applications

Verified Activity:	<ol style="list-style-type: none"><li>1. Western blot analysis of extracts from HCT116, untreated (-) or treated with Etoposide (100 <math>\mu</math>M, 2 h) (+), using Phospho-Chk2 (Thr68) Antibody, Rabbit MAb at 1:500 dilution (upper) or Anti-CHEK2 Antibody, Rabbit PAb (middle) at 1:1000 dilution or Beta-Tubulin Loading Control Antibody, Mouse Mab at 1:10000 dilution.</li><li>2. Western blot analysis of extracts from HCT116, untreated (line A); treated with Etoposide (100 <math>\mu</math>M, 2 h), without peptide (line B) or antigen-specific phosphopeptide (line C) or antigen-specific peptide (line D) using Phospho-Chk2 (Thr68) Antibody, Rabbit MAb at 1:500 dilution. (Validation Experiment)</li><li>3. Western blot analysis of extracts from HCT116, untreated (line A); treated with Etoposide (100 <math>\mu</math>M, 2 h) (line B); treated with Etoposide and <math>\lambda</math>-phosphatase (line C) using Phospho-Chk2 (Thr68) Antibody, Rabbit MAb at 1:500 dilution. (Validation Experiment)</li><li>4. Western blot analysis of extracts from HCT116, treated with Etoposide (100<math>\mu</math>M, 2 h), using Phospho-Chk2 (Thr68) Antibody, Rabbit MAb and other brands' antibodies (Company C) at dilution of 1:1000, 1:5000. (Validation Experiment)</li></ol>
Application:	WB
Recommended	WB: 1:1000-1:10000

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	A synthetic peptide: residues around Thr68 of the Human Chk2
Antigen Species:	Human
Synonyms:	p-Chk2 (Thr68);CDS1;hCds1;Chk2 (p-T68);p-Chk2 (T68);CHK-2;Chk2 (p-Thr68);bA444G7;TPDS4;HuCds1;LFS2;Phospho-Chk2 (T68);PP1425;RAD53
Biology Area:	Cancer Drug Targets, Tumor Suppressors

## Research Background

In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by CHEK2 gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential for activation in response to DNA

damage and is rapidly phosphorylated in response to replication blocks and DNA damage. When activated, the encoded CHEK2 protein is known to inhibit CDC25C phosphatase, preventing entry into mitosis, and has been shown to stabilize the tumor suppressor protein p53, leading to cell cycle arrest in G1. In addition, this protein interacts with and phosphorylates BRCA1, allowing BRCA1 to restore survival after DNA damage. Mutations in this gene have been linked with Li-Fraumeni syndrome, a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53. Also, mutations in CHEK2s gene are thought to confer a predisposition to sarcomas, breast cancer, and brain tumors. This nuclear protein is a member of the CDS1 subfamily of serine/threonine protein kinases. Several transcript variants encoding different isoforms have been found for this gene. Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481