

## Product datasheet for **AP55715PU-S**

### Chk2 (CHEK2) pThr383 Rabbit Polyclonal Antibody

#### Product data:

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Applications:           | IF, WB  |
| Recommended Dilution:   | <b>Western blot:</b> 1:500~1:1000.<br><b>Immunofluorescence:</b> 1:100~1:200.   |
| Reactivity:             | Human, Mouse, Rat   |
| Host:                   | Rabbit  |
| Clonality:              | Polyclonal  |
| Immunogen:              | Peptide sequence around phosphorylation site of threonine383 (M-R-T(p)-L-C) derived from Human Chk1 (KLH-conjugated)  |
| Specificity:            | The antibody detects endogenous levels of Chk2 only when phosphorylated at threonine 383.   |
| Formulation:            | Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol<br>State: Aff - Purified<br>State: Liquid Ig fraction |
| Concentration:          | lot specific  |
| Purification:           | Affinity chromatography using epitope-specific peptide  |
| Conjugation:            | Unconjugated  |
| Storage:                | Upon receipt, store undiluted (in aliquots) at -20°C.<br>Avoid repeated freezing and thawing.   |
| Stability:              | Shelf life: one year from despatch.   |
| Predicted Protein Size: | 60 kDa  |
| Gene Name:              | checkpoint kinase 2   |
| Database Link:          | <a href="#">Entrez Gene 11200 Human O96017</a>  |



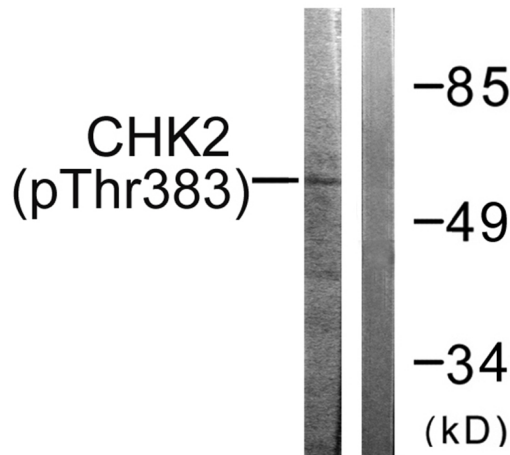
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**Background:**

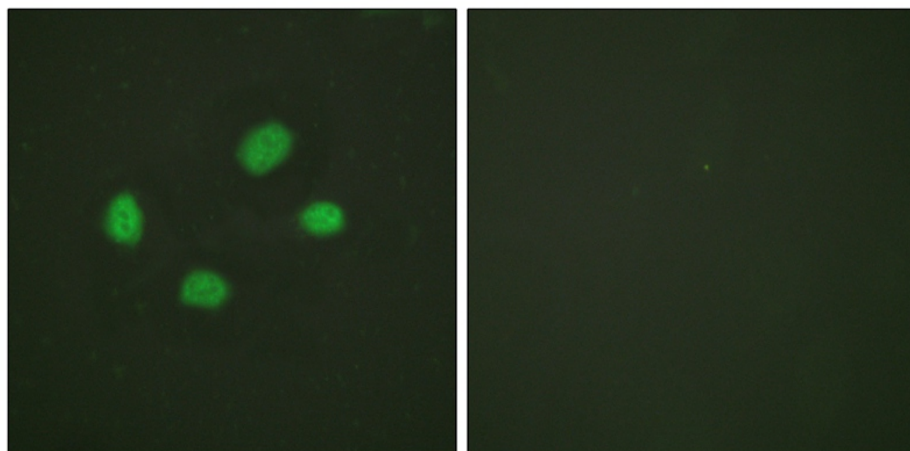
In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by Chk2 gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential for activation in response to DNA damage and is rapidly phosphorylated in response to replication blocks and DNA damage. When activated, the encoded 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 this 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. Three transcript variants encoding different isoforms have been found for this gene.

**Synonyms:**

CHEK2, CHEK-2, CHK-2, RAD53, Cds1

**Product images:**

Western blot analysis of extracts from COS7 cells treated with UV using Chk2 (Phospho-Thr383) Antibody. The lane on the right is treated with the antigen-specific peptide.



Immunofluorescence staining of methanol-fixed HeLa cells using Chk2 (Phospho-Thr383) Antibody.