

Product datasheet for **TA374727**

Chk2 (CHEK2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IP, WB
Recommended Dilution:	WB,1:500 - 1:2000 IF,1:50 - 1:200 IP,1:20 - 1:50
Reactivity:	Human
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-220 of human Chk2 (NP_009125.1).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	15-38kDa/50-65kDa
Gene Name:	checkpoint kinase 2
Database Link:	Entrez Gene 11200 Human O96017



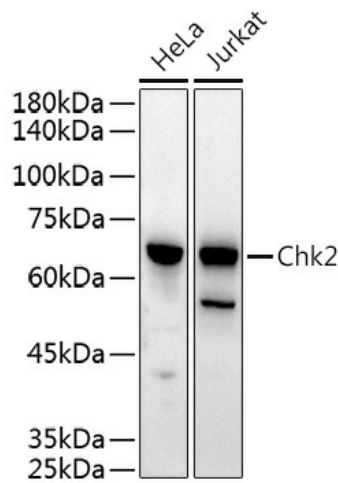
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Background:

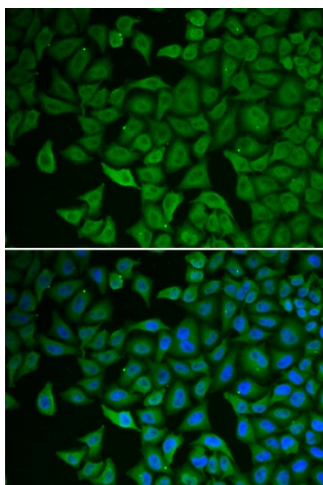
In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by this gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential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

Synonyms:

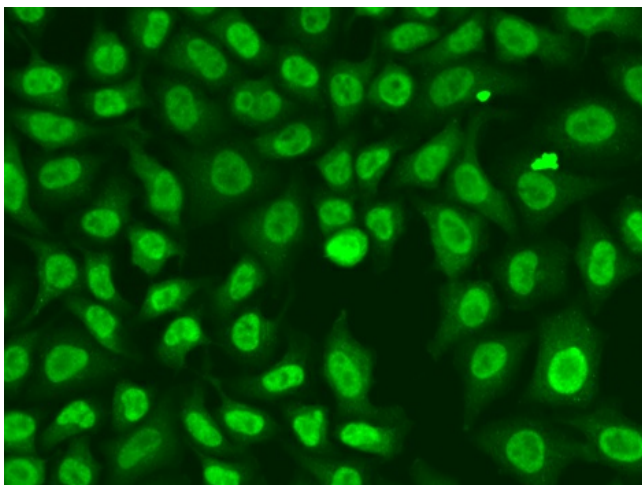
bA444G7; CDS1; CHK2; HuCds1; LFS2; OTTHUMP00000199044; OTTHUMP00000199045; OTTHUMP00000199116; PP1425; RAD53

Product images:

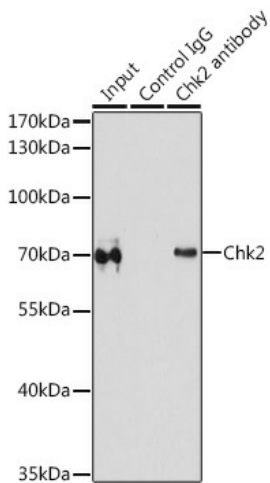
Western blot analysis of extracts of various cell lines, using Chk2 antibody (TA374727) at 1:500 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit. | Exposure time: 30s.



Immunofluorescence analysis of HeLa cells using Chk2 antibody (TA374727). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of A549 cells using Chk2 antibody (TA374727).



Immunoprecipitation analysis of 200ug extracts of MCF-7 cells using 1ug Chk2 antibody (TA374727). Western blot was performed from the immunoprecipitate using Chk2 antibody (TA374727) at a dilution of 1:1000.