# ARG54652
# anti-CHEK2 antibody

Package: 50 µg
Store at: -20°C

## Summary

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|---|---|
| Product Description | Rabbit Polyclonal antibody recognizes CHEK2 |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | ELISA, ICC/IF, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | CHEK2 |
| Immunogen | Synthetic peptide within the first 50 aa of Human Chk2 protein. |
| Conjugation | Un-conjugated |
| Alternate Names | Hucds1; PP1425; CDS1; Serine/threonine-protein kinase Chk2; Checkpoint kinase 2; CHK2; hCds1; RAD53; HuCds1; LFS2; CHK2 checkpoint homolog; EC 2.7.11.1; Cds1 homolog |

## Application Instructions

Application table

| Application | Dilution |
|---|---|
| ELISA | Assay-Dependent |
| ICC/IF | 1 µg/mL |
| WB | 1 µg/mL |

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| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |
| Positive Control | Jurkat Cell Lysate |
| Observed Size | 60 kDa |

## Properties

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| Form | Liquid |
| Purification | Affinity purification with immunogen. |
| Buffer | PBS and 0.02% Sodium azide |
| Preservative | 0.02% Sodium azide |
| Concentration | 1 mg/ml |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |

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| Note | For laboratory research only, not for drug, diagnostic or other use. |

## Bioinformation

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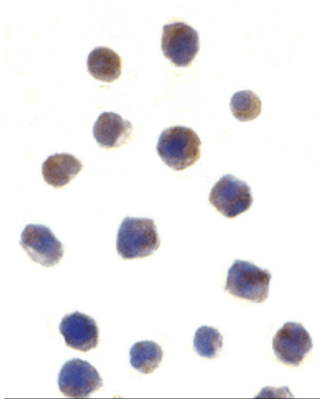
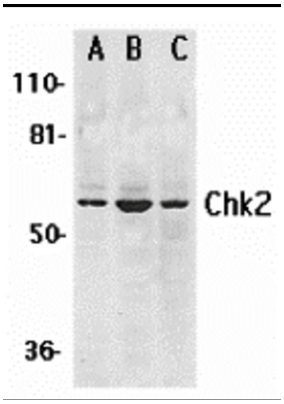
| Database links | GeneID: 11200 Human<br>GeneID: 50883 Mouse<br>Swiss-port # O96017 Human<br>Swiss-port # Q9Z265 Mouse |
| Gene Symbol | CHEK2 |
| Gene Full Name | checkpoint kinase 2 |
| Background | Chk2 Antibody: The p53 tumor-suppressor gene integrates numerous signals that control cell life and death. Several novel molecules involved in p53 signaling, including Chk2, p53R2, p53AIP1, Noxa, PIDD, and PID/MTA2, were recently discovered. The checkpoint kinase Chk2 is the mammalian homologue of yeast Cds1/Rad53. In response to DNA damage, the checkpoint kinase ATM phosphorylates and activates Chk2, which in turn directly phosphorylates and activates p53. Chk2 serves as ATM downstream effector to mediate activation of p53. Chk2 also phosphorylates and activates BRCA1, the product of a tumor suppressor gene that is mutated in breast and ovarian cancer. \| |
| Research Area | Cancer antibody; Gene Regulation antibody |
| Calculated Mw | 61 kDa |
| PTM | Phosphorylated. Phosphorylated at Ser-73 by PLK3 in response to DNA damage, promoting phosphorylation at Thr-68 by ATM and the G2/M transition checkpoint. Phosphorylation at Thr-68 induces homodimerization. Autophosphorylates at Thr-383 and Thr-387 in the T-loop/activation segment upon dimerization to become fully active and phosphorylate its substrates like for instance CDC25C. DNA damage-induced autophosphorylation at Ser-379 induces CUL1-mediated ubiquitination and regulates the pro-apoptotic function. Phosphorylation at Ser-456 also regulates ubiquitination. Phosphorylated by PLK4.<br>Ubiquitinated. CUL1-mediated ubiquitination regulates the pro-apoptotic function. Ubiquitination may also regulate protein stability. Ubiquitinated by RNF8 via 'Lys-48'-linked ubiquitination. |

## Images



ARG54652 anti-CHEK2 antibody ICC/IF image

Immunocytochemistry: Jurkat cells stained with ARG54652 anti-CHEK2 antibody at 1 µg/ml.




ARG54652 anti-CHEK2 antibody WB image

Western blot: (A) K562, (B) Jurkat, and (C) HL-60 whole cell lysates stained with ARG54652 anti-CHEK2 antibody at 1 µg /ml.