# CHEK2 (Human) Cell-Based ELISA Kit

Catalog # KA2670 Size 1 Kit

## Specification

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| **Product Description** | CHEK2 (Human) Cell-Based ELISA Kit is an indirect enzyme-linked immunoassay for qualitative det ermination of CHEK2 expression in cultured cells. |
| **Suitable Sample** | Attached Cell, Loosely Attached Cell, Suspension Cell |
| **Label** | HRP-conjugated |
| **Detection Method** | Colorimetric |
| **Assay Type** | Qualitative |
| **Reactivity** | Human, Mouse, Rat |
| **Regulation Status** | For research use only (RUO) |
| **Storage Instruction** | Store the kit at 4°C. |

## Applications

- Qualitative

## Gene Info — CHEK2

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| **Entrez GeneID** | 11200 |
| **Protein Accession#** | O96017 |
| **Gene Name** | CHEK2 |
| **Gene Alias** | CDS1, CHK2, HuCds1, LFS2, PP1425, RAD53 |
| **Gene Description** | CHK2 checkpoint homolog (S. pombe) |

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|---|---|
| **Omim ID** | 114480 176807 259500 604373 609265 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | 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. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq |
| **Other Designations** | OTTHUMP00000028871\|checkpoint-like protein CHK2\|protein kinase CHK2\|serine/threonine-protein kinase CHK2 |

## Pathway

- Cell cycle
- p53 signaling pathway

## Disease

- Adenocarcinoma
- Adenoma
- Ataxia telangiectasia
- Atherosclerosis
- Barrett Esophagus
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma

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- Cell Transformation
- Colon cancer
- Colonic Neoplasms
- Colorectal Neoplasms
- DNA Damage
- Endometrial Neoplasms
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Glioma
- Head and Neck Neoplasms
- Hypertension
- Kidney Diseases
- Kidney Failure
- Kidney Neoplasms
- Laryngeal Neoplasms
- Leukemia
- Lung Neoplasms
- Malignant melanoma
- Melanoma
- Meningeal Neoplasms
- Meningioma
- Mouth Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms

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- Neoplastic Syndromes
- Neuroma
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Pharyngeal Neoplasms
- Prostate cancer
- Prostatic Neoplasms
- Pulmonary Disease
- Skin Neoplasms
- Urinary Bladder Neoplasms
- Werner syndrome

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