

Recombinant Human CHEK2 Protein, MYC/DDK-tagged

Cat. No. CHEK2-3214H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human CHEK2 protein, fused to MYC/DDK-tagged at C-terminus, was expressed in HEK293.

Species Human

Source HEK293

Description 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.

Form 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

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Molecular Mass	60.7 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration	>50 ug/mL as determined by microplate BCA method

GENE INFORMATION

Gene Name	CHEK2 checkpoint kinase 2 [Homo sapiens]
Official Symbol	CHEK2
Synonyms	CDS1; CHK2; hCds1; HuCds1; LFS2; PP1425; RAD53
Gene ID	11200
mRNA Refseq	NM_001005735
Protein Refseq	NP_001005735
UniProt ID	O96017

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