

Recombinant Human CHEK2 Protein, GST-Tagged

Cat. No. CHEK2-1223H Lot. No. (See product label)

SPECIFICATION

Product Overview

Human CHEK2 full-length ORF (AAH04207.1, 1 a.a. - 543 a.a.) recombinant protein with GST-tag at N-terminal.

Species

Human

Source

Wheat Germ

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. [provided by RefSeq, Apr 2012]

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Molecular Mass	85.14 kDa
AA Sequence	MSRES DVEAQQSHGSSACSQPHGSVTQSQGSSSSQSQGISSSSTSTMPNSSQSSH SSSGTLSSLETVSTQELYSIPEDQEPEDQEPEEPTPAPWARLWALQDGFANLECVN DNYWFG RDKSCEYCFDEPLLKRTDKYRTYSKKHFRIFREVGPKNSYIAYIEDHSGNG TFVNTELVGKGKRRPLNNNSEIALSLSRNKVFVFFDLTVDDQSVYPKALRDEYIMSKT LGSGACGEVKLA FERKTCKKVAIKIISKRKFAIGSAREADPALNVETEIEILKKLNHPCII KIKNFFDAEDYYIVLELMEGGELFDKVVG NKRLKEATCKLYFYQMLLAVQYLHENGII HRDLKPENVLLSSQEEDCLIKITDFGH SKILGETSLMRTL CGTPTYLAPEVLVSVGTA GYNRAVDCWSLGVILFICLSGYPPFSEHRTQVSLKDQITSGKYNFIPEVWAEVSEKAL DLVKLLV VDPKARFTTEEALRHPWLQDEDMKRKFQDLLSEENESTALPQVLAQPS TSRKRPREGEAEGAETTKRPAVCAAVL
Applications	Enzyme-linked Immunoabsorbent Assay Western Blot (Recombinant protein) Antibody Production Protein Array
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
GENE INFORMATION	
Gene Name	CHEK2 checkpoint kinase 2 [Homo sapiens]
Official Symbol	CHEK2
Synonyms	CHEK2; checkpoint kinase 2; CHK2 (checkpoint, S.pombe) homolog, CHK2 checkpoint homolog (S. pombe), RAD53; serine/threonine-protein kinase Chk2; bA444G7; CDS1; CHK2; HuCds1; PP1425; cds1 homolog; CHK2 checkpoint

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homolog; checkpoint-like protein CHK2; LFS2; RAD53; hCds1;

Gene ID 11200

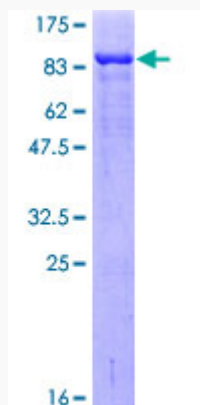
mRNA Refseq NM_001005735

Protein Refseq NP_001005735

MIM 604373

UniProt ID O96017

**Quality Control
Testing**



12.5% SDS-PAGE Stained with Coomassie Blue.

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