Recombinant Full Length Human CHEK2 Protein, GST-tagged

Cat. No. CHEK2-3189HF **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	In Vitro Cell Free System
ProteinLength	543 amino acids
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

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	RefSeq, Apr 2012]
Molecular Mass	85.14 kDa
AA Sequence	MSRESDVEAQQSHGSSACSQPHGSVTQSQGSSSQSQGISSSSTSTMPNSSQSSH SSSGTLSSLETVSTQELYSIPEDQEPEDQEPEEPTPAPWARLWALQDGFANLECVN DNYWFGRDKSCEYCFDEPLLKRTDKYRTYSKKHFRIFREVGPKNSYIAYIEDHSGNG TFVNTELVGKGKRRPLNNNSEIALSLSRNKVFVFFDLTVDDQSVYPKALRDEYIMSKT LGSGACGEVKLAFERKTCKKVAIKIISKRKFAIGSAREADPALNVETEIEILKKLNHPCII KIKNFFDAEDYYIVLELMEGGELFDKVVGNKRLKEATCKLYFYQMLLAVQYLHENGII HRDLKPENVLLSSQEEDCLIKITDFGHSKILGETSLMRTLCGTPTYLAPEVLVSVGTA GYNRAVDCWSLGVILFICLSGYPPFSEHRTQVSLKDQITSGKYNFIPEVWAEVSEKAL DLVKKLLVVDPKARFTTEEALRHPWLQDEDMKRKFQDLLSEENESTALPQVLAQPS 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

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	checkpoint homolog (S. pombe), RAD53; serine/threonine-protein kinase Chk2; bA444G7; CDS1; CHK2; HuCds1; PP1425; cds1 homolog; CHK2 checkpoint homolog; checkpoint-like protein CHK2; LFS2; RAD53; hCds1;
Gene ID	11200
mRNA Refseq	NM_001005735
Protein Refseq	NP_001005735
MIM	604373
UniProt ID	O96017

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