

Recombinant Human CDK2, His-tagged

Cat. No. CDK2-797H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CDK2 protein, fused to His-tag at C-terminus, was expressed in E.coli and purified by using conventional chromatography (1-298aa).
Species	Human
Source	Human
Description	CDK2, also known as cyclin-dependent kinase 2, is a member of the Ser/Thr protein kinase family. It is highly similar to the gene products of <i>S. cerevisiae</i> cdc28, and <i>S. pombe</i> cdc2. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and is essential for cell cycle G1/S phase transition. This protein associates with and is regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by protein phosphorylation.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT
Molecular Weight	35.0 kDa (306aa), confirmed by MALDI-TOF
Purity	> 95% by SDS - PAGE
Concentration	0.5 mg/ml (determined by Bradford assay)
Sequences of amino acids	MENFQKVEKI GEGTYGVVYK ARNKLTGEVV ALKKIRLDTE TEGVPSTAIR EISLLKELNH PNIVKLLDVI HTENKLYLVF EFLHQDLKKF MDASALTGIP

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LPLIKSYLFQ LLQGLAFCHS HRVLHRDLKP QNLLINTEGA IKLADFGLAR
 AFGVPVRTYT HEVVTWLYRA PEILLGCKYY STAVDIWSLG CIFAEMVTRR
 ALFPGDSEID QLFRIERTLG TPDEVVWPGV TSMPDYKPSF PKWARQDFSK
 VVPPLDEDGR SLLSQMLHYD PNKRISAKAA LAHPFFQDVT KPVPHLRLLLE
 HHHHHH

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways Cell cycle; Pathways in cancer ; Progesterone-mediated oocyte maturation; Prostate cancer; Small cell lung cancer; p53 signaling pathway; DNA Replication; Cell Cycle, Mitotic; Cell Cycle Checkpoints

GENE INFORMATION

Gene Name [CDK2 cyclin-dependent kinase 2 \[Homo sapiens \]](#)

Official Symbol [CDK2](#)

Synonyms CDK2; cyclin-dependent kinase 2; p33 protein kinase; cell division kinase 2; cdc2-related protein kinase; EC 2.7.11.22; cell division protein kinase 2; CCNA2; p33(CDK2); cyclin A2; CCN1; CCNA; Cyclin-A; Cyclin-A2

Gene ID [1017](#)

mRNA Refseq [NM_001798](#)

Protein Refseq [NP_001789](#)

MIM [116953](#)

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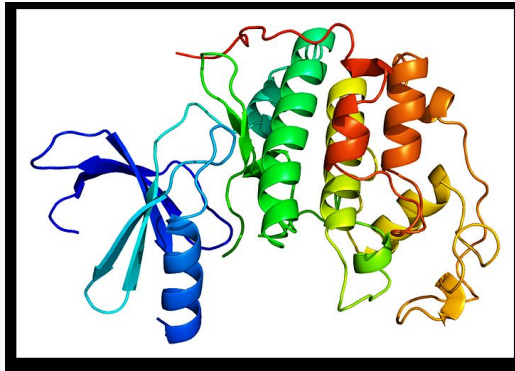
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UniProt ID P24941

**Chromosome
Location** 12q13

Function ATP binding; cyclin-dependent protein kinase activity; histone kinase activity; identical protein binding; nucleotide binding; transferase activity; protein binding; protein kinase activity

**PDB rendering based
on 1aq1.**



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