

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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

LPLIKSYLFQ LLQGLAFCHS HRVLHRDLKP QNLLINTEGA IKLADFGLAR
 AFGVPVRTYT HEVVTWLWYRA PEILLGCKYY STAVDIWSLG CIFAEMVTRR
 ALFPGDSEID QLFRIFRTLK TPDEVVWPGV TSMPDYKPSF PKWARQDFSK
 VVPPLDEDGR SLLSQMLHYD PNKRISAKAA LAHPFFQDVT KPVPHLRLL
 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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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.	