

Recombinant Human cyclin-dependent kinase 2, His-tagged

Cat. No. CDK2-655H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CDK2, 1-298aa Human, His tag, Insect cell
Species	Human
Source	Insect Cells
ProteinLength	1-298 a.a.
Description	Cyclin-dependent kinase 2, also known as CDK2, phosphorylates CTNNB1, USP37, p53/TP53, NPM1, CDK7, RB1, BRCA2, MYC, NPAT, EZH2. This protein acts at the G1-S transition to promote the E2F transcriptional program and the initiation of DNA synthesis, and modulates G2 progression; controls the timing of entry into mitosis/meiosis by controlling the subsequent activation of cyclin B/CDK1 by phosphorylation, and coordinates the activation of cyclin B/CDK1 at the centrosome and in the nucleus. This protein is crucial role in orchestrating a fine balance between cellular proliferation, cell death, and DNA repair in human embryonic stem cells (hESCs). Recombinant human CDK2 protein, fused to His-tag at C-terminus, was expressed in insect cells using baculovirus expression system and purified by using conventional chromatography techniques.
Form	Liquid. In Phosphate buffered saline (pH7.4), 30% glycerol, 2mM DTT, 0.1mM PMSF
Molecular Mass	34.9 kDa (306aa)
AA Sequence	MENFQKVEKI GEGTYGVVYK ARNKLTGEVV ALKKIRLDTE TEGVPSTAIR

 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

EISLLKELNH PNIVKLLDVI HTENKLYLVF EFLHQDLKKF MDASALTGIP
 LPLIKSYLFQ LLQGLAFCHS HRVLHRDLKP QNLLINTEGA IKLADFGLAR
 AFGVPVRTYT HEVVTWLYRA PEILLGCKYY STAVDIWSLG CIFAEMVTRR
 ALFPGDSEID QLFRIFRTLK TPDEVVWPGV TSMPDYKPSF PKWARQDFSK
 VVPPLDEDGR SLLSQMLHYD PNKRISAKAA LAHPFFQDVT KPVPHLRLLLE
 HHHHHH

Purity >90% by SDS - PAGE

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

Concentration 0.5 mg/ml (determined by Bradford assay)

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; cell division protein kinase 2; p33(CDK2);

Gene ID 1017

mRNA Refseq NM_001798

Protein Refseq NP_001789

MIM 116953

 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

UniProt ID	P24941
Chromosome Location	12q13
Pathway	APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem; Activation of ATR in response to replication stress, organism-specific biosystem; Activation of the pre-replicative complex, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem; BARD1 signaling events, organism-specific biosystem; CDK-mediated phosphorylation and removal of Cdc6, organism-specific biosystem; Cell Cycle, organism-specific biosystem;
Function	ATP binding; cyclin binding; cyclin-dependent protein kinase activity; cyclin-dependent protein kinase activity; contributes_to histone kinase activity; kinase activity; metal ion binding; nucleotide binding; protein binding; protein kinase activity;

 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