

# Recombinant human CDK2 protein

Catalog Number: ATGP2878

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

1-298aa

### UniProt No.

P24941

### NCBI Accession No.

NP\_001789.2

### Alternative Names

Cyclin-dependent kinase 2, p33 (CDK2)

## PRODUCT SPECIFICATION

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### Molecular Weight

34.9 kDa (306aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) 30% glycerol, 2mM DTT, 0.1mM PMSF

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### 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).

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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.

## Amino acid Sequence

MENFQKVEKI GEGTYGVVYK ARNKLTGEVV ALKKIRLDTE TEGVPSTAIR EISLLKELNH PNIVKLLDVI HTENKLYLVF  
EFLHQDLKKF MDASALTGIP LPLIKSYLFQ LLQGLAFCHS HRVLHRDLKP QNLLINTEGA IKLADFGAR AFGVPVRTYT  
HEVVTWLYRA PEILLGCKYY STAVDIWSLG CIFAEMVTRR ALFPGDSEID QLFRIERTLG TPDEVVWPGV TSMPDYKPSF  
PKWARQDFSK VVPLDEDGR SLLSQMLHYD PNKRISAKAA LAHPFFQDVT KPVPHLRL<LE HHHHHH>

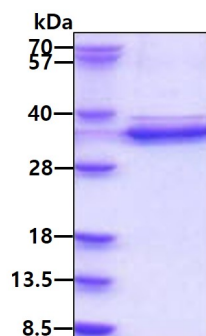
## General References

Okuda M., et al. (2000) Cell. 103:127-140.

Ma T., et al. (2000) Genes Dev. 14:2298-2313.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain