

## Recombinant Human CDK2 Protein (E.coli, His Tag)

**Catalog No.** PKSH033407

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

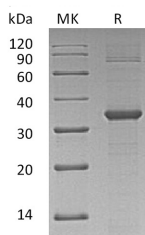
### Description

<b>Synonyms</b>	Cyclin-Dependent Kinase 2, Cell Division Protein Kinase 2, p33 Protein Kinase, CDK2, CDKN2
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 1-Leu298
<b>Accession</b>	P24941
<b>Calculated Molecular Weight</b>	36.1 kDa
<b>Observed molecular weight</b>	34 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Testing in progress

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4., 5% trehalose, 5% mannitol, 0.01% tween-80. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the print
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

Cyclin-dependent kinase 2 (CDK2) belongs to the cyclin-dependent kinase of Ser/Thr protein kinase. CDK2 acts as a

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catalytic subunit of the cyclin dependent kinase complex, whose activity is restricted to the G1-S phase of the cell cycle, it is essential for the G1/S transition. The kinase activity of CDK2 can be regulated by the association with a cyclin subunit, its phosphorylation state and CDK inhibitors. The activation of the CDK2/cyclin complex requires the phosphorylation of Thr160 and the dephosphorylation of Tyr14 and Tyr15. The inhibition of CDK2-cyclin complex can also be attributed to association with p27Kip1 and p21Waf1/Cip1. The activation of CDK2 has been shown to be necessary for apoptosis of quiescent cells, such as neurons, thymocytes and endothelial cells.