

## CDK2/CyclinE1, Unactive

Full-length recombinant protein expressed in Sf9 cells

Catalog # C29-14G

Lot # V372-2

### Product Description

Recombinant full-length human CDK2 and CyclinE1 were co-expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag on both proteins. The gene accession numbers for CDK2 and CyclinE1 are [NM\\_001798](#) and [NM\\_001238](#), respectively.

### Gene Aliases

CDK2: p33 (CDK2)

CyclinE1: CCNE1, CCNE

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

### Scientific Background

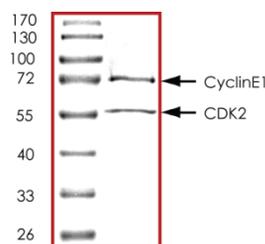
CDK2 is a member of the Cyclin-Dependent Kinase family that is ubiquitously expressed. CDK2 is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and essential for cell cycle G1/S phase transition. CDK2 associates with and is regulated by the regulatory subunits of the complex including Cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B) (1). CDK2 phosphorylates multiple cellular substrates including SMAD3 and FOXO1. Phosphorylation of FOXO1 leads to its inhibition (2).

### References

1. Levkau, B. et al: Cleavage of p21(Cip1/Waf1) and p27(Kip1) mediates apoptosis in endothelial cells through activation of Cdk2: role of a caspase cascade. *Molec. Cell*: 553-563, 1998.
2. Huang, H. et al: CDK2-dependent phosphorylation of FOXO1 as an apoptotic response to DNA damage. *Science* 314: 294-297, 2006.

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### Purity



The purity of CDK2/CyclinE1 was determined to be **>90%** by densitometry, CDK2 approx. MW **58kDa** and CyclinE1 Approx. MW **73kDa**.

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Full-length recombinant protein expressed in Sf9 cells

Catalog Number	C29-14G
Specific Lot Number	V372-2
Purity	>90%
Concentration	0.2 $\mu\text{g}/\mu\text{l}$
Stability	1yr at $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.