

Product Information

CDK2, GST-tagged, human recombinant, expressed in *Sf9* cells

Catalog Number **SRP5342**
Storage Temperature -70°C

Synonym: p33 (CDK2)

Product Description

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

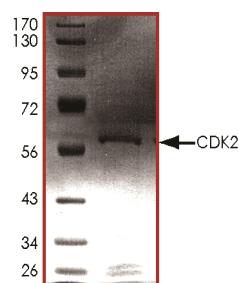
Recombinant full-length human CDK2 was expressed by baculovirus in *Sf9* insect cells using an N-terminal GST-tag. The gene accession number is NM_001798. It is supplied in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~58 kDa

The enzymatic activity of this product has not been determined.

Figure 1.

SDS-PAGE Gel of Typical Lot:
 $\geq 70\%$ (SDS-PAGE, densitometry)



Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

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*, **1**, 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).

RC,MAM 10/12-1