

CDK4, Unactive

Full-length recombinant protein expressed in *E. coli* cells

Catalog # C31-14G

Lot # K127-1

Product Description

Recombinant full-length human CDK4 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is [NM_000075](#).

Gene Aliases

CMM3, MGC14458, PSK-J3

Formulation

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

Storage and Stability

Store product at -70°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.

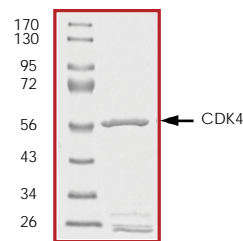
Scientific Background

CDK4 is a member of the cyclin-dependent protein kinases and is involved in the control of cell proliferation during the G1 phase of the cell cycle. CDK4 forms a complex with the D-type cyclins which regulate its activity. CDK4 is inhibited by p16, also known as cyclin-dependent kinase inhibitor-2. CDK4 can mediate phosphorylation of the C-terminal region of Rb protein leading to an active transcriptional repression of E2F complex (1). CDC37 and HSP90 can preferentially associate with the fraction of CDK4 not bound to D-type cyclins. Pharmacologic inactivation of CDC37/HSP90 function leads to reduced stability of CDK4. SMAD3 is a major physiologic substrate of the G1 cyclin-dependent kinases CDK4 and CDK2 (2).

References

1. Harbour, J W. et al: Cdk phosphorylation triggers sequential intramolecular interactions that progressively block Rb functions as cells move through G1. *Cell* 98: 859-869, 1999.
2. Matsuura, I. et al: Cyclin-dependent kinases regulate the antiproliferative function of Smads. *Nature* 430: 226-231, 2004.

Purity



The purity was determined to be **>80%** by densitometry.
Approx. MW **57kDa**.

Upstream Active Kinases

GSK3 β

Cat # G09-10G

CDK4, Unactive

Full-length recombinant protein expressed in *E. coli* cells

Catalog Number	C31-14G
Specific Lot Number	K127-1
Purity	>80%
Concentration	0.2 $\mu\text{g}/\mu\text{l}$
Stability	1yr At -70°C from date of shipment
Storage & Shipping	Store product at -70°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.

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