

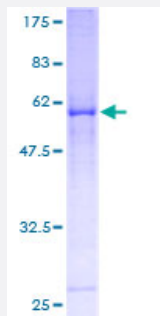
Full-Length

CDK4 (Human) Recombinant Protein (P02)

Catalog # H00001019-P02

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human CDK4 full-length ORF (AAH03644, 1 a.a. - 303 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MATSRYPVAEIGVGAYGTVYKARDPHSGHFVALKSVRVPNGGGGGGLPISTVREVALRRLEA
FEHPNVVRLMDVCATSRTDREIKVTLVFEHVDQDLRTYLDKAPPPGLPAETIKDLMRQFLRGLDFL
HANCIVHRDLKPENILVTSGGTVKLADFGGLARIYSQMALTPVVVTLWYRAPEVLLQSTYATPVDM
WSVGCIFAEMFRRKPLFCGNSEADQLGKIFDLIGLPPEDDWPRDVS LPRGAFPPRGPRPVQSVV
PEMEESGAQLLLEMLTFNPHKRISAFRALQHSYHLKDEGNPE

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

59.07

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CDK4

Entrez GeneID [1019](#)

GeneBank Accession# [BC003644](#)

Protein Accession# [AAH03644](#)

Gene Name CDK4

Gene Alias CMM3, MGC14458, PSK-J3

Gene Description cyclin-dependent kinase 4

Omim ID [123829 609048](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is highly similar to the gene products of *S. cerevisiae* cdc28 and *S. pombe* cdc2. It is a catalytic sub unit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity of this kinase is restricted to the G1-S phase, which is controlled by the regulatory subunits D-type cyclins and CDK inhibitor p16(INK4a). This kinase was shown to be responsible for the phosphorylation of retinoblastoma gene product (Rb). Mutations in this gene as well as in its related proteins including D-type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenesis of a variety of cancers. Multiple polyadenylation sites of this gene have been reported. [provided by RefSeq]

Other Designations cell division kinase 4|melanoma cutaneous malignant, 3

Publication Reference

- [p16INK4A Enhances the Transcriptional and the Apoptotic Functions of p53 through DNA-dependent Interaction.](#)

Al-Khalaf HH, Nallar SC, Kalvakolanu DV, Aboussekhra A.

Molecular Carcinogenesis 2017 Jul; 56(7):1687.

Application: Func, PI, Recombinant protein

- [Regulated Activating Thr172 Phosphorylation of Cyclin-Dependent Kinase 4\(CDK4\): Its Relationship with Cyclins and CDK "Inhibitors".](#)

Bockstaele L, Kooken H, Libert F, Paternot S, Dumont JE, de Launoit Y, Roger PP, Coulonval K.

Molecular and Cellular Biology 2006 Jul; 26(13):5070.

Application: Spodoptera frugiperda, Sf9 cells

Pathway

- [Bladder cancer](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [Glioma](#)
- [Melanoma](#)
- [Non-small cell lung cancer](#)
- [p53 signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Small cell lung cancer](#)
- [T cell receptor signaling pathway](#)
- [Tight junction](#)

Disease

- [Adenocarcinoma](#)
- [Birth Weight](#)

- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Head and Neck Neoplasms](#)
- [Kidney Failure](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Mouth Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Precancerous Conditions](#)

- [Pulmonary Disease](#)
- [Retinoblastoma](#)
- [Skin Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Uveal Neoplasms](#)
- [Werner syndrome](#)