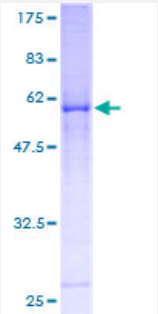
Full-Length

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	MATSRYEPVAEIGVGAYGTVYKARDPHSGHFVALKSVRVPNGGGGGGGLPISTVREVALLRRLEAFEHPNVVRLMDVCATSRTDREIKVTLVFEHVDQDLRTYLDKAPPPGLPAETIKDLMRQFLRGLDFLHANCIVHRDLKPENILVTSGGTVKLADFGLARIYSYQMALTPVVVTLWYRAPEVLLQSTYATPVDMWSVGCIFAEMFRRKPLFCGNSEADQLGKIFDLIGLPPEDDWPRDVSLPRGAFPPRGPRPVQSVVPEMEESGAQLLLEMLTFNPHKRISAFRALQHSYLHKDEGNPE
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.

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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 activit y of this kinase is restricted to the G1-S phase, which is controlled by the regulatory subunits D-typ e cyclins and CDK inhibitor p16(INK4a). This kinase was shown to be responsible for the phosph orylation of retinoblastoma gene product (Rb). Mutations in this gene as well as in its related prote ins including D-type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenes is of a variety of cancers. Multiple polyadenylation sites of this gene have been reported. [provide d by RefSeq
Other Designations	cell division kinase 4|melanoma cutaneous malignant, 3

Publication Reference

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- 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

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- 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

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- Pulmonary Disease
- Retinoblastoma
- Skin Neoplasms
- Urinary Bladder Neoplasms
- Uveal Neoplasms
- Werner syndrome

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