

Full-Length

CDK2 (Human) Recombinant Protein (P01)

Catalog # H00001017-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human CDK2 full-length ORF (AAH03065, 1 a.a. - 298 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRLDTETEGVPSTAIREISLLKELNHPNVKLLD VIHTENKLYLVFEFLHQDLKKFMDASALTGIPLPLIKSYLFQLLQGLAFCHSHRVLHRDLKPQNLLIN TEGAIKLADFGARAFGVPVRTYTHEVVTWYRAPEILLGCKYYSTAVDIWSLGCIFAEMVTRRALF PGDSEIDQLFRIFRTLGPDEVVWPGVTSMPDYKPSFPKWARQDFSKVVPPLDEDGRSLLSQML HYDPNKRISAKAALAHPPFQDVTKPVPHRL
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	58.52
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 — CDK2

Entrez GeneID [1017](#)

GeneBank Accession# [BC003065](#)

Protein Accession# [AAH03065](#)

Gene Name CDK2

Gene Alias p33(CDK2)

Gene Description cyclin-dependent kinase 2

Omim ID [116953](#)

Gene Ontology [Hyperlink](#)

Gene Summary The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein kinase is highly similar to the gene products of *S. cerevisiae* cdc28, and *S. pombe* cdc2. It 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. This protein associates with and regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by its protein phosphorylation. Two alternatively spliced variants and multiple transcription initiation sites of this gene have been reported. [provided by RefSeq]

Other Designations cdc2-related protein kinase|cell division kinase 2|p33 protein kinase

Publication Reference

- [Peptide Aptamers in Label-Free Protein Detection: 2. Chemical Optimization and Detection of Distinct Protein Isoforms.](#)

Davis JJ, Tkac J, Humphreys R, Buxton AT, Lee TA, Ko Ferrigno P.

Analytical Biochemistry 2009 May; 81(9):3314.

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: WB, Dog, Human, Dog thyrocytes, T98G cells

Pathway

- [Cell cycle](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Small cell lung cancer](#)

Disease

- [Azoospermia](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Chromosome Aberrations](#)
- [Diabetes Mellitus](#)
- [Genetic Predisposition to Disease](#)
- [Kidney Failure](#)
- [Lymphoma](#)

- [Neoplasm Invasiveness](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)