

# Active Recombinant Human CDK2/CCNE1 protein, GST-tagged

**Cat. No.** CDK2-48H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant full-length human CDK2 and CyclinE1 were co-expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag on both proteins.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>Description</b>	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). CDK2 phosphorylates multiple cellular substrates including SMAD3 and FOXO1. Phosphorylation of FOXO1 leads to its inhibition.
<b>Form</b>	50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
<b>Bio-activity</b>	404 nmol/min/mg
<b>Molecular Mass</b>	CDK2 ~58kDa and CyclinE1 ~73kDa
<b>Purity</b>	>90%
<b>Applications</b>	Kinase Assay, Western Blot

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Stability</b>	1 year at -70 centigrade from date of shipment
<b>Storage</b>	Store product at -70 centigrade. 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.
<b>Concentration</b>	0.1 µg/µl
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	CDK2 cyclin-dependent kinase 2 [ Homo sapiens ]
<b>Official Symbol</b>	CDK2
<b>Synonyms</b>	CDK2; cyclin-dependent kinase 2; p33 protein kinase; cell division kinase 2; cdc2-related protein kinase; cell division protein kinase 2; p33(CDK2);
<b>Gene ID</b>	1017
<b>mRNA Refseq</b>	NM_001798
<b>Protein Refseq</b>	NP_001789
<b>MIM</b>	116953
<b>UniProt ID</b>	P24941
<b>Chromosome Location</b>	12q13
<b>Pathway</b>	APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



Activation of ATR in response to replication stress, organism-specific biosystem

**Function**

ATP binding; cyclin binding; cyclin-dependent protein kinase activity; cyclin-dependent protein kinase activity; contributes\_to histone kinase activity; kinase activity; metal ion binding; nucleotide binding; protein binding; protein kinase activity;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA