

# Recombinant Human Human CDK1

**Cat. No.** CDK1-31590TH    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant full length Human CDK1 and Cyclin-A1 with N-terminal proprietary tags on both proteins; MWt 58 and 81 kDa respectively.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>Description</b>	The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with this protein and function as regulatory subunits. The kinase activity of this protein is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of this protein also play important regulatory roles in cell cycle control. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.
<b>Tissue specificity</b>	Isoform 2 is found in breast cancer tissues.
<b>Biological activity</b>	The Specific activity of CDK1-31590TH was determined to be 38 nmol/min/mg.
<b>Form</b>	Liquid
<b>Purity</b>	Densitometry

 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>Storage buffer</b>	Preservative: None Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 10mM Glutathione, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequence Similarities</b>	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.
<b>Full Length</b>	Full L.

## GENE INFORMATION

<b>Gene Name</b>	CDK1 cyclin-dependent kinase 1 [ Homo sapiens ]
<b>Official Symbol</b>	CDK1
<b>Synonyms</b>	CDK1; cyclin-dependent kinase 1; CDC2, cell division cycle 2, G1 to S and G2 to M; CDC28A;
<b>Gene ID</b>	983
<b>mRNA Refseq</b>	NM_001170406
<b>Protein Refseq</b>	NP_001163877
<b>MIM</b>	116940
<b>Uniprot ID</b>	P06493
<b>Chromosome Location</b>	10q21.2

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**Pathway**

APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem;  
APC/C:Cdc20 mediated degradation of Cyclin B, organism-specific biosystem;  
APC/C:Cdc20 mediated degradation of mitotic proteins, organism-specific biosystem;  
ARMS-mediated activation, organism-specific biosystem; Activated TLR4 signalling,  
organism-specific biosystem;

**Function**

ATP binding; Hsp70 protein binding; RNA polymerase II carboxy-terminal domain  
kinase activity; cyclin binding; cyclin-dependent protein kinase activity;

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