

## Recombinant Human CDK1, Unactive, GST-tagged

**Cat. No.** CDK1-1533H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant full-length human CDK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | Full length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | CDK1 or Cell Division Control protein 1 is essential for the completion of START, the controlling event in the cell cycle that is required to initiate mitosis. CDK1 is a catalytic subunit of a protein kinase complex, called the M-Phase Promoting Factor that induces entry into mitosis and is universal among eukaryotes. Phosphorylation of Bcl-2 in G2/M phase-arrested cells following photodynamic therapy with hypericin involves a CDK1-mediated signal and delays the onset of apoptosis. Therapeutic potential of CDK inhibitor NU2058 in androgen-independent prostate cancer has also been demonstrated. |
| <b>Form</b>             | Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>   | ~58 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

 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>Applications</b>        | Kinase Assay, Western Blot                                                                                                                                                                                                                                                                                |
| <b>Storage</b>             | Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.                                                                                                                                          |
| <b>Concentration</b>       | 0.2µg/µl                                                                                                                                                                                                                                                                                                  |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                                                                           |
| <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; p34 protein kinase; cell cycle controller CDC2; cell division protein kinase 1; cell division control protein 2 homolog; cell division cycle 2, G1 to S and G2 to M; CDC2; P34CDC2; MGC111195; DKFZp686L20222; |
| <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                                                                                                                                                                                                                                                                                                   |

 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

**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; Activation of APC/C and APC/C:Cdc20 mediated  
 degradation of mitotic proteins, organism-specific biosystem; Androgen Receptor  
 Signaling Pathway, organism-specific biosystem;

**Function**

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