

Recombinant Human CDK1, Unactive, GST-tagged

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

SPECIFICATION

Product Overview	Recombinant full-length human CDK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
Description	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.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
Molecular Mass	~58 kDa
Purity	>95%

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Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.2µg/µl
GENE INFORMATION	
Gene Name	CDK1 cyclin-dependent kinase 1 [Homo sapiens]
Official Symbol	CDK1
Synonyms	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;
Gene ID	983
mRNA Refseq	NM_001170406
Protein Refseq	NP_001163877
MIM	116940
UniProt ID	P06493
Chromosome Location	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; 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;