

Recombinant Human Cyclin-Dependent Kinase 1, GST-tagged

Cat. No. CDK1-998H **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
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.
Applications	Kinase Assay; Western Blot
Molecular Weight	58 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 0.25 mM DTT, 0.1 mM EDTA, 0.1 mM PMSF, 25 % glycerol.

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Purity	> 95 %
Concentration	0.2 ug/ul
Sequences	Full-length
Storage	Store product at -70°C. 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.
Pathways	ARMS-mediated activation; Activated TLR4 signalling; Androgen Receptor Signaling Pathway; Axon guidance; Cell Cycle Checkpoints; Cell Cycle; Centrosome maturation; Cyclin B2 mediated events; Down-stream signal transduction; E2F transcription factor network; ERK activation; ERK1 activation; Gap junction; Hedgehog Signaling Pathway; Herpes simplex infection

GENE INFORMATION

Gene Name	CDK1 cyclin-dependent kinase 1 [Homo sapiens]
Official Symbol	CDK1
Synonyms	CDK1; cyclin-dependent kinase 1; CDC2; CDC28A; P34CDC2; MGC111195; DKFZp686L20222; cell division cycle 2; OTTHUMP00000019659; OTTHUMP00000019660; OTTHUMP00000019661; p34 protein kinase; cell cycle controller CDC2; cell division control protein 2 homolog; cell division cycle 2, G1 to S and G2 to M; EC 2.7.11.23; EC 2.7.11.22; CCNA2; cyclin A2; CCN1; CCNA; Cyclin-A; Cyclin-A2
Gene ID	983

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mRNA Refseq	NM_001786
Protein Refseq	NP_001777
MIM	116940
UniProt ID	P06493
Chromosome Location	10q21.1
Function	ATP binding; Hsp70 protein binding; RNA polymerase II carboxy-terminal domain kinase activity; cyclin binding; cyclin-dependent protein kinase activity; histone kinase activity; nucleotide binding; protein binding; protein kinase activity

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