

Active Recombinant Human CDK2/CCNE1 protein, GST-tagged

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	Insect Cells
Description	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.
Form	50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
Bio-activity	404 nmol/min/mg
Molecular Mass	CDK2 ~58kDa and CyclinE1 ~73kDa
Purity	>90%
Applications	Kinase Assay, Western Blot

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

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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;

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