

Recombinant Human CDK2-CCNE1 Protein, Full Length, C-6×His and N-GST tagged

Cat. No. CDK2-CCNE1-01HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Complex of recombinant, human full length cdk2 containing a C-terminal 6×His-tag, and recombinant, human full length cyclin E containing an N-terminal GST-tag.
Species	Human
Source	Insect cells
ProteinLength	Full length
Description	The cyclin-dependent kinases (CDKs), are a family of serine threonine protein kinases, that control the cell division cycle. In mammals, nine different CDKs (cdk 1 to cdk 9) have been identified. CDKs are regulated on various levels including binding of proteins (cyclins, inhibitors, and assembly factors), protein degradation, transcriptional control, localization, and multiple phosphorylations. This leads to timely regulation of CDK activity, allowing progression from one cell cycle phase to the next. The cdk2 promotes the G1/S transition and progression through the S phase when bound to specific cyclins (E and A). Recent evidences indicate that CDK2 is involved in cell cycle independent functions such as DNA damage repair.
Form	Frozen solution
Bio-activity	1898 U/mg, where one unit of CDK2/cylinE1 activity is defined as 1nmol phosphate incorporated into 0.1 mg/mL histone H1 per minute at 30 centigrade with a final ATP concentration of

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	100µM.
Molecular Mass	CDK2 MW = 34 kDa cyclinE1 MW = 74 kDa
AA Sequence	CDK2: MENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRLDTETEGVPSTAIRES LLKELNHPNIVKLLDVIHTENKLYLVFEFLHQDLKKFMDASALTGIPLPLIKSYLFQLLQ GLAFCHSHRVLHRDLKPQNLLINTEGAIKLADFGGLARAFGVPVRTYTHEVVTWLWYRA PEILLGCKYYSTAVDIWSLGCIFAEMVTRRALFPGDSEIDQLFRIFRTLGTDPDEVVWP GVTSMPPDYKPSFPKWARQDFSKVVPPLDEDGRSLLSQMLHYDPNKRISAKAALAHF FFQDVTKPVPHRLRLHHHHHH cyclinE1: MSPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKKFELGL EFPNLPYYIDGDVKLTQSMIIRYIADKHNLGGCPKERAESMLEGAVLDIRYGVSR AYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYM DPMCLDAFPKLVCFKKRIEAIQIDKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLE VLFQGPPEFMPRERRERDAKERDTMKEDGGAEFSSARSRKANVTVFLQDPDEEMA KIDRTARDQCGSQPWDNNAVCADPCSLIPTDKEDDDRVPNSTCKPRIIAPSRGSP LPVLSWANREEVWKIMLNKEKTYLRDQHFLEQHPLLQPKMRAILLDWLMEVCEVYK LHRETFYLAQDFFDRYMATQENVVKTLLQLIGISSLFIAAKLEEIYPPKLHQFAYVTDG ACSGDEILTMELMIMKALKWRLSPLTIVSWLNVYMQVAYLNDLHEVLLPQYPQQIFIQI AELLDLCVLDVDCLEFPYGILAASALYHFSSSELMQKVSGYQWCDIENCVKWMVPF AMVIRETGSSKLKHFRGVADEDAHNIQTHRDSLDDKARAKKAMLSEQNRASPLPS GLLTPPQSGKKQSSGPEMA
Purity	77.3% by SDS-PAGE and Coomassie blue staining.
Notes	Rapidly thaw the vial under cold water and immediately place on ice. Aliquot unused material into pre-chilled microcentrifuge tubes and immediately snap-freeze the vials in liquid nitrogen prior to re-storage at -70 centigrade.

Stability	1 year at -70 centigrade
Storage	On receipt of material store at -70 centigrade. Unopened reagent is stable for a minimum of 6 months from date of shipment when stored at recommended storage temperature. Avoid repeat freeze/thaw cycles. For maximum recovery of product, centrifuge original vial prior to removing the cap.
Concentration	0.914 mg/mL
Storage Buffer	50 mM Tris/HCl pH7.5, 150 mM NaCl, 0.03% Brij-35, 0.1 mM EGTA, 0.2 mM PMSF, 1 mM benzamidine, 0.1% 2-mercaptoethanol, 270 mM sucrose.
GENE INFORMATION	
Gene Name	CDK2 cyclin dependent kinase 2 [Homo sapiens (human)]
Official Symbol	CDK2
Synonyms	CDK2; cyclin dependent kinase 2; CDKN2; p33(CDK2); cyclin-dependent kinase 2; cdc2-related protein kinase; cell division protein kinase 2; p33 protein kinase; EC 2.7.11.22; CCNE; Ccne1; CCNE1; cyclin E variant ex5del; cyclin E variant ex7del; Cyclin E1; Cyclin Es; Cyclin Et; CyclinE; G1/S specific cyclin E; G1/S-specific cyclin-E1; pCCNE1
Gene ID	1017
mRNA Refseq	NM_052827
Protein Refseq	NP_439892
MIM	116953

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