

CDK1-CCNE1 Heterodimer Protein, Human (sf9, His-GST)

Cat. No.:	HY-P74257
Synonyms:	Cyclin-dependent kinase 1; CDK1; CDC2; G1/S-specific cyclin-E1; CCNE1
Species:	Human
Source:	Sf9 insect cells
Accession:	NP_001777.1 (M1-M297)& NP_001229.1 (M1-A410)
Gene ID:	983&898
Molecular Weight:	Approximately 109.7 (60.4+49.3) kDa

PROPERTIES

AA Sequence

M E D Y T K I E K I	G E G T Y G V V Y K	G R H K T T G Q V V	A M K K I R L E S E
E E G V P S T A I R	E I S L L K E L R H	P N I V S L Q D V L	M Q D S R L Y L I F
E F L S M D L K K Y	L D S I P P G Q Y M	D S S L V K S Y L Y	Q I L Q G I V F C H
S R R V L H R D L K	P Q N L L I D D K G	T I K L A D F G L A	R A F G I P I R V Y
T H E V V T L W Y R	S P E V L L G S A R	Y S T P V D I W S I	G T I F A E L A T K
K P L F H G D S E I	D Q L F R I F R A L	G T P N N E V W P E	V E S L Q D Y K N T
F P K W K P G S L A	S H V K N L D E N G	L D L L S K M L I Y	D P A K R I S G K M
A L N H P Y F N D L	D N Q I K K M & M P	R E R R E R D A K E	R D T M K E D G G A
E F S A R S R K R K	A N V T V F L Q D P	D E E M A K I D R T	A R D Q C G S Q P W
D N N A V C A D P C	S L I P T P D K E D	D D R V Y P N S T C	K P R I I A P S R G
S P L P V L S W A N	R E E V W K I M L N	K E K T Y L R D Q H	F L E Q H P L L Q P
K M R A I L L D W L	M E V C E V Y K L H	R E T F Y L A Q D F	F D R Y M A T Q E N
V V K T L L Q L I G	I S S L F I A A K L	E E I Y P P K L H Q	F A Y V T D G A C S
G D E I L T M E L M	I M K A L K W R L S	P L T I V S W L N V	Y M Q V A Y L N D L
H E V L L P Q Y P Q	Q I F I Q I A E L L	D L C V L D V D C L	E F P Y G I L A A S
A L Y H F S S S E L	M Q K V S G Y Q W C	D I E N C V K W M V	P F A M V I R E T G
S S K L K H F R G V	A D E D A H N I Q T	H R D S L D L L D K	A R A K K A M L S E
Q N R A S P L P S G	L L T P P Q S G K K	Q S S G P E M A	

Biological Activity Measured by its binding ability in a functional ELISA.

Appearance Solution.

Formulation Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 2 mM GSH, 10% Glycerol, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution N/A.

Storage & Stability Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for

extended storage. Avoid repeated freeze-thaw cycles.

Shipping

Shipping with dry ice

DESCRIPTION

Background

The CDK1 Protein, a member of the Ser/Thr protein kinase family, serves as the catalytic subunit in the highly conserved M-phase promoting factor (MPF) complex crucial for G2/M phase transitions in the eukaryotic cell cycle. Mitotic cyclins form stable associations with this protein, acting as regulatory subunits. The kinase activity is finely regulated through the accumulation and degradation of cyclins across the cell cycle. Phosphorylation and dephosphorylation events further contribute to the intricate regulatory mechanisms governing cell cycle control. Notably, the CDK1 Protein demonstrates broad expression, particularly prevalent in the lymph nodes (RPKM 12.8), bone marrow (RPKM 12.8), and 18 other tissues, suggesting its involvement in diverse physiological processes across multiple organ systems. Various alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene.

Caution: Product has not been fully validated for medical applications. For research use only.

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