

## Datasheet for ABIN7195306

### CDK1 Protein (GST tag)



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#### Overview

Quantity:	50 µg
Target:	CDK1
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK1 protein is labelled with GST tag.

#### Product Details

Purpose:	Recombinant Human CDC2 Kinase/CDK1 Protein (GST Tag)
Sequence:	Met 1-Met 297
Characteristics:	A DNA sequence encoding the human CDC2 isoform 1 (NP_001777.1) (Met 1-Met 297) was fused with the GST tag at the N-terminus.
Purity:	> 92 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

#### Target Details

Target:	CDK1
Alternative Name:	CDC2 Kinase/CDK1 ( <a href="#">CDK1 Products</a> )
Background:	Background: CDC2, also known as CDK1, contains 1 protein kinase domain and belongs to the protein kinase superfamily, CMGC Ser/Thr protein kinase family, CDC2/CDKX subfamily. CDC2 is a catalytic subunit of the highly conserved protein kinase complex known as M-phase

## Target Details

promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with CDC2 and function as regulatory subunits. The kinase activity of CDK1 is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of CDC2 also play important regulatory roles in cell cycle control. It is required in higher cells for entry into S-phase and mitosis. CDC2 also is a cyclin-dependent kinase which displays CTD kinase activity and is required for RNA splicing. It has CTD kinase activity by hyperphosphorylating the C-terminal heptapeptide repeat domain (CTD) of the largest RNA polymerase II subunit RPB1, thereby acting as a key regulator of transcription elongation. CDK1 is required for RNA splicing, possibly by phosphorylating SRSF1/SF2. It is involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors.

Synonym: CDC2,CDC28A,P34CDC2

Molecular Weight: 60 kDa

NCBI Accession: [NP\\_001777](#)

Pathways: [Cell Division Cycle](#), [Fc-epsilon Receptor Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Activation of Innate immune Response](#), [Mitotic G1-G1/S Phases](#), [DNA Replication](#), [M Phase](#), [Toll-Like Receptors Cascades](#), [Synthesis of DNA](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 50 mM Tris, 100 mM NaCl, 0.5 mM PMSF, 0.5 mM EDTA, 0.5 mM GSH, pH 8.0

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.