Recombinant Human CDK1&Cyclin E1 Kinase

Catalog No.: RP03303LQ

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Sequence Information

Species	Gene ID
Human	983&898

Swiss Prot	Tags
P06493&P24864	N-GST (CDK1) & N-His-Flag (Cyclin E1)

Synonyms

CDK1; CDC2; CDC28A; CDKN1; P34CDC2; Cyclin-dependent kinase 1; Cyclin E1; CCNE1; CCNE; G1/S-specific cyclin-E1

Product Information

Source	Purification
Baculovirus-Insect Cells	≥ 90 % as determined by SDS-PAGE;≥ 90 % as determined by HPLC.

Calculated MW	Observed MW
60.6 kDa/51.0 kDa	50-60 kDa/48-52 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Supplied as a 0.22 μm filtered solution in 50 mM Tris-HCl, 150 mM NaCl, 5% glycerol, 1 mM DTT. (pH 7.5). Contact us for customized product form or formulation.

Reconstitution

Please use running water to thaw it quickly.

Background

CDK1 also known as cyclin-dependent kinase 1 or cell division cycle protein 2 homolog is a highly conserved protein that functions as a serine/threonine protein kinase, and is a key player in cell cycle regulation. CDK1 is a small protein (approximately 34 kDa), and is highly conserved. When bound to its cyclin partners, CDK1 phosphorylation leads to cell cycle progression. Given its essential role in cell cycle progression, CDK1 is highly regulated. Most obviously, CDK1 is regulated by its binding with its cyclin partners. Cyclin binding alters access to the active site of CDK1, allowing for CDK1 activity. Cyclin E1 functions as a regulator of S phase entry and progression in mammalian cells. It was found to associate with, and be involved in, the phosphorylation of NPAT protein (nuclear protein mapped to the ATM locus), which participates in cell-cycle regulated histone gene expression and plays a critical role in promoting cell-cycle progression in the absence of pRB.

Basic Information

Description

Recombinant Human CDK1&Cyclin E1 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Met297 (CDK1) & Met1-Glu410 (Cyclin E1)) of Human CDK1&CCNE1 (Accession #P06493&P24864) fused with a N-GST (CDK1) & N-His-Flag (Cyclin E1) tag.

Activity

The activity of CDK1/Cyclin E1 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -70℃

Operational Notes

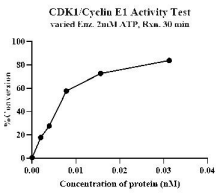
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

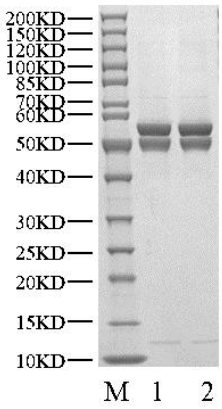
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For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



The activity of CDK1/Cyclin E1 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.



Recombinant Human CDK1&Cyclin E1 Kinase was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.