Recombinant Human CDK2&Cyclin E1 Kinase

Catalog No.: RP03310LQ

Sequence Information

Species	Gene ID
Human	1017&898

Swiss Prot	Tags
P24941&P24864	N-GST (CDK2) & N-His-Flag (Cyclin E1)

Synonyms

CDK2; CDKN2; Cyclin-dependent kinase 2; 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
60.5 kDa/51.1 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, 200 mM NaCl, 5% glycerol. (pH 7.5). Contact us for customized product form or formulation.

Reconstitution

Please use running water to thaw it quickly.

Background

CDK2, also known as cyclin-dependent kinase 2, or cell division protein kinase 2, is a member of the cyclin-dependent kinase family of Ser/Thr protein kinases. This protein associates with and is regulated by the regulatory subunits of the complex including cyclin E or A. Cyclin E binds G1 phase CDK2, which is required for the transition from G1 to S phase while binding with Cyclin A is required to progress through the S phase. The cyclin E protein contains a section called the cyclin box, which interacts with the PSTAIRE helix on CDK2 to enact a conformational change in CDK2's T loop. Once the CDK2/Cyclin E1 dimer is formed and activated, it phosphorylates several important proteins including proteins involved in centrosome duplication (NPM, CP110, Mps1), DNA synthesis (Cdt1), DNA repair (Brca1, Ku70), histone gene transcription (p220/NPAT, CBP/p300, HIRA) and Cdk inhibitors.

Basic Information

Description

Recombinant Human CDK2&Cyclin E1 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Leu298 (CDK2) & Met1-Glu410 (Cyclin E1)) of Human CDK2&CCNE1 (Accession #P24941&P24864) fused with a N-GST (CDK2) & N-His-Flag (Cyclin E1) tag.

Activity

The activity of CDK2/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

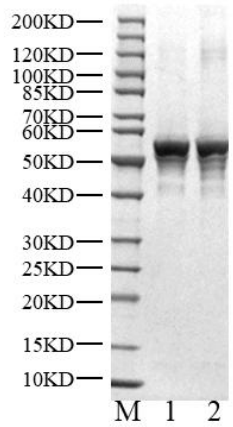
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

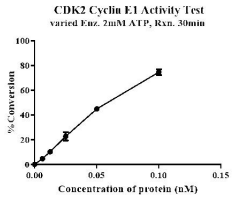
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Validation Data



Recombinant Human CDK2&Cyclin E1 Kinase was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



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