

Human CCNE1 / Cyclin-E1 Protein (His & GST Tag)

Catalog Number: 10902-H20B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CCNE

Protein Construction:

A DNA sequence encoding the full length of human CCNE1 isoform 1 (NP_001229.1) (Met 1-Ala 410) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 82 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized human HG3C-CCNE1 (Cat:10902-H20B) at 10 µg/ml (100 µl/well) can bind biotinylated human GST-CDK4 (Cat:10732-H09B). The EC_{50} of biotinylated human GST-CDK4 (Cat:10732-H09B) is 45.0-106.0 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human CCNE1/GST chimera consists of 647 amino acids and has a calculated molecular mass of 75 KDa. It migrates as an approximately 70 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% gly, 1mM GSH, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

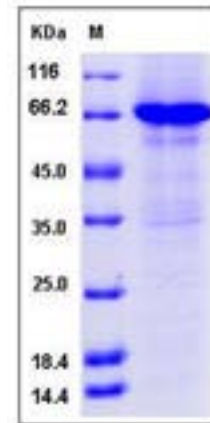
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Cyclin E1 is a member of the highly conserved cyclin family and belongs to the E-type cyclin that functions as a regulator of S phase entry and progression in mammalian cells. Cyclin E1 serves as regulatory subunits that bind, activate, and provide substrate for its associated cyclin-dependent kinase2 (CDK2), whose activity is essential for cell cycle G1 / S transition. Over expression of this encoding gene has been found in many tumors, which results in chromosome instability and by extension, induce tumorigenesis. This protein was also 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. In general, cyclin E1, as an activator of phospho-CDK2 (pCDK2), is important for cell cycle progression and is frequently overexpressed in cancer cells.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>