abcam

Product datasheet

Recombinant human CDK4 + CCND3 protein ab85646

1 References 2 Images

Overview

Product name	Recombinant human CDK4 + CCND3 protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Baculovirus infected Sf9 cells
Amino Acid Sequence	
Species	Human

Specifications

Our Abpromise guarantee covers the use of **ab85646** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity	The Specific activity of ab85646 was determined to be 16 nmol/min/mg.
Applications	Western blot Functional Studies SDS-PAGE
Form	Liquid
Additional notes	ab56270 (Human Rb protein fragment) can be utilized as a substrate for assessing Kinase activity

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol, 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

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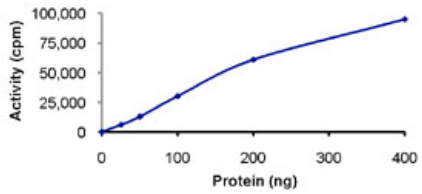
Relevance

CDK4 is a member of the Ser/Thr protein kinase family. It is highly similar to the gene products of S. cerevisiae cdc28, and S. pombe cdc2. CDK4 is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity of this kinase is restricted to the G1/S phase, which is controlled by the regulatory subunits D type cyclins and CDK inhibitor p16(INK4a). CDK4 was shown to be responsible for the phosphorylation of retinoblastoma gene product (Rb). Mutations in this gene as well as its related proteins including D type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenesis of a variety of cancers. CCND3 (Cyclin D3) belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. CCND3 forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activtiy is required for cell cycle G1/S transition. It has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb.

Cellular localization

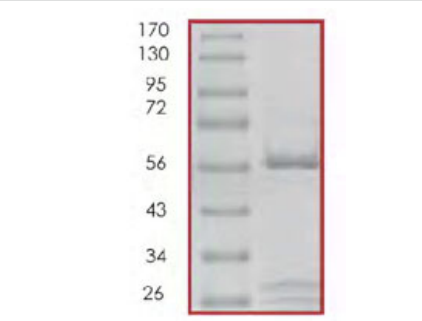
CCND3: Cytoplasm. Nucleus.

Images



Functional Studies - Recombinant human CDK4 + CCND3 protein (ab85646)

The Specific activity of ab85646 was determined to be 16 nmol/min/mg.



SDS-PAGE - Recombinant human CDK4 + CCND3 protein (ab85646)

SDS-PAGE showing ab85646 at approximately 58kDa (both proteins).

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