

Product datasheet

Recombinant human CDK2 + CCNA1 protein ab105205

[5 Images](#)

Description

Product name	Recombinant human CDK2 + CCNA1 protein
Biological activity	The Specific activity of ab105205 was determined to be 83 nmol/min/mg.
Purity	> 85 % SDS-PAGE. Purity was determined to be >85% by densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Additional sequence information	The CDK2 gene accession number is NM_001798; CyclinA1 is NM_003914.

Specifications

Our **Abpromise guarantee** covers the use of **ab105205** in the following tested applications.

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

Applications	SDS-PAGE Western blot Functional Studies
---------------------	--

Form	Liquid
-------------	--------

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.307% Glutathione, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
------------------------------	--

General Info

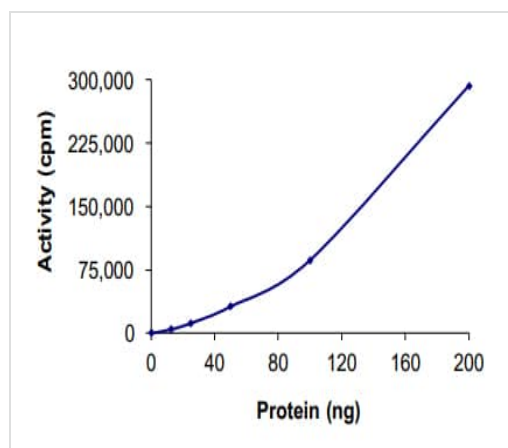
Relevance

CDK2 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. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and is essential for cell cycle G1/S phase transition. This protein associates with and is regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by protein phosphorylation. Two alternatively spliced variants and multiple transcription initiation sites of this gene have been reported. Cyclin A1 (CCNA1) 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. Cyclin A1 is expressed in testis and brain, as well as in several leukemic cell lines, and is thought to primarily function in the control of the germline meiotic cell cycle. It binds both CDK2 and CDC2 kinases, which give two distinct kinase activities, one appearing in S phase, the other in G2, and thus regulate separate functions in cell cycle. Cyclin A1 was found to bind to important cell cycle regulators, such as Rb family proteins, transcription factor E2F-1, and the p21 family proteins.

Cellular localization

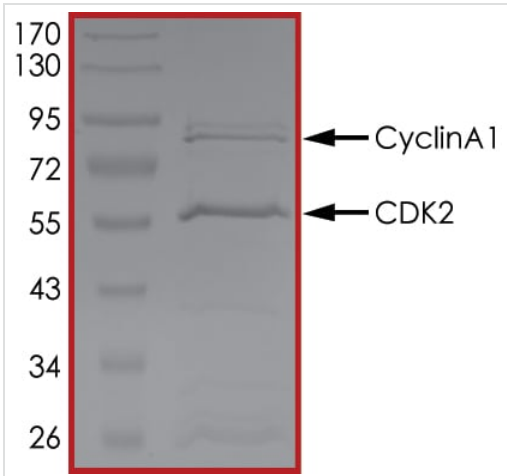
CCNA1: Nuclear

Images



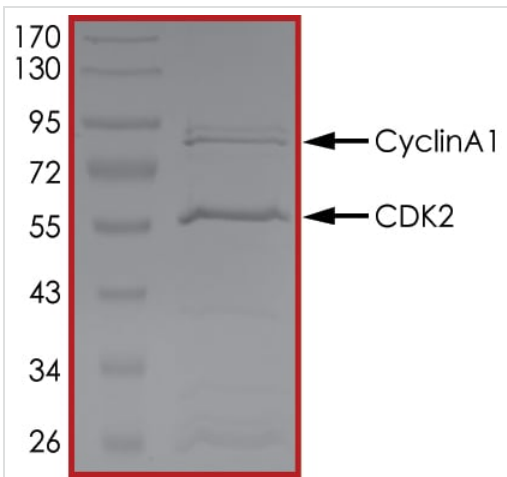
The specific activity of CDK2 + CCNA1 (ab105205) was determined to be 74 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human CDK2 + CCNA1 protein (ab105205)



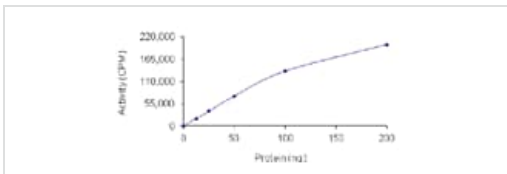
SDS PAGE analysis of ab105205

SDS-PAGE - Recombinant human CDK2 + CCNA1 protein (ab105205)



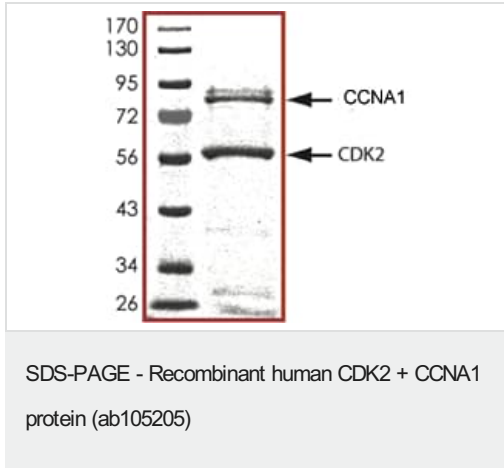
SDS PAGE analysis of ab105205

SDS-PAGE - Recombinant human CDK2 + CCNA1 protein (ab105205)



The Specific activity of ab105205 was determined to be 83 nmol/min/mg.

Functional Studies - Recombinant human CDK2 + CCNA1 protein (ab105205)



SDS-PAGE showing ab105205 at approximately 58 and 81kDa respectively.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors