

Product datasheet

Recombinant human CDK2 + Cyclin A2 protein
ab198143

2 Images

Description

Product name Recombinant human CDK2 + Cyclin A2 protein

Biological activity **Specific Activity:** 203 pmol/min/µg.

Assay Conditions: Assay was done in a Kinase buffer using Histone H1 (0.1 mg/ml at final concentration) as a substrate with 20 µM ATP at 30°C for 45 min. The amount of ATP transferred was calculated.

Purity > 98 % SDS-PAGE.

Expression system Baculovirus infected Sf9 cells

Accession [P24941](#)
[P20248](#)

Protein length Full length protein

Animal free No

Nature Recombinant

Amino Acid Sequence 1

Species Human

Sequence MENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRLD
TETEGVPSTAIR
EISLLKELNHPNIVKLLDVIHTENKLYLVFEFLHQDLKKF
MDASALTGIP
LPLIKSYLFQLLQGLAFCHSHRVLHRDLKPQNLLINTEG
AIKLADFGLAR
AFGVPVRTYTHEVVTLWYRAPEILLGCKYYSTAVDIWSL
GCIFAEMVTRR
ALFPGDSEIDQLFRIFRTLGTPDEVVWPGVTSMPDYKP
SFPKWARQDFSK
VVPPLDEDGRSLLSQMLHYDPNKRISAKAALAHPPFQ
DVTKPVPHLRL

Predicted molecular weight 34 kDa including tags

Amino acids 1 to 298

Additional sequence information Gene accession number is NM_001798.

Amino Acid Sequence 2

Species Human
Predicted molecular weight 57 kDa including tags
Amino acids 174 to 432
Tags GST tag N-Terminus
Additional sequence information Gene accession number NM_001237

Specifications

Our [Abpromise guarantee](#) covers the use of **ab198143** in the following tested applications.

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

Applications Functional Studies
SDS-PAGE

Form Liquid

Additional notes The two proteins are co-expressed in a baculovirus Sf9 insect cell expression system.

Preparation and Storage

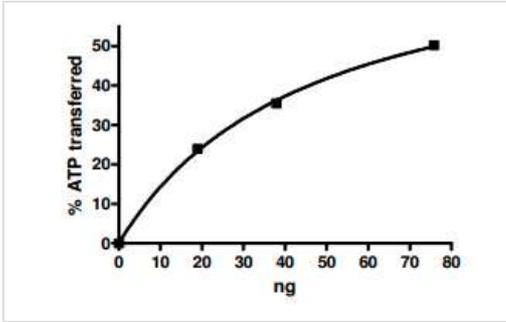
Stability and Storage Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.
pH: 8.00
Constituents: 10% Glycerol, 2.32% Sodium chloride, 0.61% Glutathione, 0.03% DTT, 0.33% Sodium phosphate
This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Relevance CDK2 is a member of the Ser/Thr protein kinase family. This protein kinase 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 essential for cell cycle G1/S phase transition. This protein associates with and 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 its protein phosphorylation. Cyclin A2 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. In contrast to cyclin A1, which is present only in germ cells, this cyclin is expressed in all tissues tested. This cyclin binds and activates CDC2 or CDK2 kinases, and thus promotes both cell cycle G1/S and G2/M transitions.

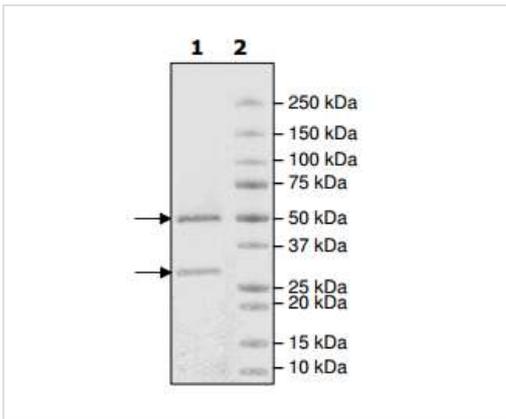
Cellular localization Nuclear

Images



Activity assay using ab198143.

Functional Studies - Recombinant human CDK2 + Cyclin A2 protein (ab198143)



4-20% SDS-PAGE Coomassie staining. Lane 1: 3.48 µg ab198143. Lane 2: Protein Marker

SDS-PAGE - Recombinant human CDK2 + Cyclin A2 protein (ab198143)

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

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