

## Recombinant Human CCNA1/Cyclin-A1 Protein (His Tag)

Catalog Number: PKSH031307

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

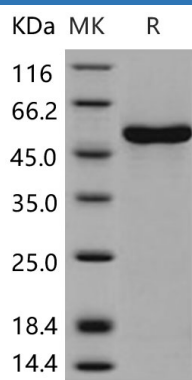
### Description

<b>Species</b>	Human
<b>Source</b>	Baculovirus-Insect Cells-derived Human CCNA1/Cyclin-A1 protein Met 1-Gln 465, with an N-terminal His
<b>Calculated MW</b>	54.6 kDa
<b>Observed MW</b>	50 kDa
<b>Accession</b>	NP_003905.1
<b>Bio-activity</b>	1. Immobilized human His-CCNA1 at 10 µg/ml (100 µl/well) can bind biotinylated human CDK1. The EC <sub>50</sub> of biotinylated human CDK1 is 0.02-0.04 µg/ml. 2. Immobilized human His-CCNA1 at 10 µg/ml (100 µl/well) can bind biotinylated human CDK2-His. The EC <sub>50</sub> of biotinylated human CDK2-His is 0.07-0.15 µg/ml.

### Properties

<b>Purity</b>	> 96 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 96 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

Cyclin A1 is a member of the highly conserved cyclin family that is characterized by a dramatic periodicity in protein abundance, and belongs to the A-type cyclin subfamily. The mammalian A-type cyclin family consists of two members: cyclin A1 and cyclin A2. Different cyclins exhibit distinct expression. Cyclin A1 is expressed in mice exclusively in the germ cell lineage and high rate of cyclinA1 is found in human testis and certain myeloid leukaemia cells. Cyclin A1 is primarily function in the control of meiosis. It serves as regulator subunits binding to cyclin-dependent kinase 1 (Cdk1) and cyclin-dependent kinase 2 (Cdk2), which give two different kinase activities, one appearing in S phase, the other in G2. Through this, cyclin A1 operate the entry and progression in cell cycle. High frequency of cyclin A1 overexpression has been observed in acute myelocytic leukemias, especially those that are at the promyelocyte and myeloblast stages of development.

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