# Recombinant Human Proliferating cell nuclear antigen/PCNA Protein

**Catalog No.: RP01706**



## Sequence Information

**Species**
Human

**Gene ID**
5111

**Swiss Prot**
P12004

**Tags**
N-HA&Strep

**Synonyms**
ATLD2; Proliferating cell nuclear antigen; PCNA

## Product Information

**Source**
HEK293 cells

**Purification**
≥ 90 % as determined by SDS-PAGE.

**Calculated MW**
29.74 kDa

**Observed MW**
35 kDa

**Endotoxin**
< 0.1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**Reconstitution**
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

Proliferating Cell Nuclear Antigen (PCNA) is a protein only expressed in normal proliferate cells and cancer cells. It is central to both DNA replication and repair. One of the well-established functions for PCNA is its role as the processivity factor for DNA polymerase delta and epsilon. PCNA tethers the polymerase catalytic unit to the DNA template for rapid and processive DNA synthesis. Two forms of PCNA exist in cells: (i) a detergent-insoluble trimeric form stably associated with the replicating forks during S phase and (ii) a soluble form in quiescent cells in G1 and G2 phases. PCNA forms a toroidal trimer in S phase with replication factor-C (RF-C) and DNA in an ATP-dependent manner and enables the loading of DNA polymerase delta and epsilon onto the complex. The close association of PCNA with kinase complexes involved in cell cycle machinery indicates that PCNA has a regulatory role in cell cycle progression. PCNA also participates in the processing of branched intermediates that arise during the lagging strand DNA synthesis.

## Basic Information

**Description**
Recombinant Human Proliferating cell nuclear antigen/PCNA Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Phe2-Ser261) of human Proliferating cell nuclear antigen /PCNA (Accession #NP_002583.1) fused with N-HA&Strep tag at N-terminus.

**Activity**

**Shipping**
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

**Storage**
Store at -20℃

**Operational Notes**
For your safety and health, please wear a lab coat and disposable gloves for handling.

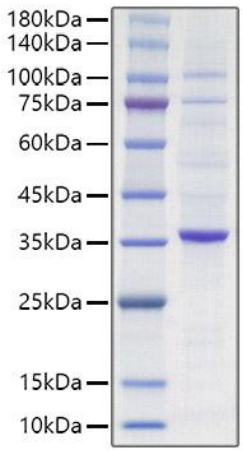
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## Validation Data




Recombinant Human Proliferating cell nuclear antigen/PCNA Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.