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Recombinant Human Proliferating cell nuclear antigen/PCNA Protein

Catalog No.: RP01706 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	5111	P12004

Tags
N-HA

Synonyms
ATLD2□Proliferating cell nuclear antigen□PCNA

Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

Calculated MW	Observed MW
29.74 kDa	35 kDa

Endotoxin
<0.1EU/μg

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.

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

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.

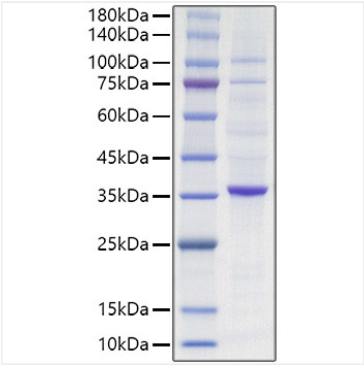
Basic Information

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 and a N-HA tag.

Bio-Activity

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Proliferating cell nuclear antigen/PCNA Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 35 kDa.