Recombinant Protein Technical Manual

Recombinant Human PCNA Protein (His Tag)

RPES3558

Product Data:

Product SKU: RPES3558

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P12004

Protein Information:

Molecular Mass:	31 kDa
AP Molecular Mass:	36 kDa
Tag:	N-His
Bio-activity:	
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile 50mM Na3PO4, 300mM NaCl, 10% glycerol, pH 7.0, 2mM DTT
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	ATLD2

Sequence: Met 1-Ser 261

Background:

Proliferating Cell Nuclear Antigen (PCNA) is a protein only expresse in nomal 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.