

## Recombinant Human Proliferating Cell Antigen (PCNA)

### Certificate of Analysis and Data Sheet

<b>Source:</b> Sf9 insect cells.	<b>Catalog No.</b> PRO-303
-------------------------------------	-------------------------------

#### Description :

Proliferating cell nuclear antigen (PCNA), a protein of 30 kDa molecular weight also known as cyclin, forms a trimer ring around a DNA double-helix. It binds to a variety of other nuclear proteins and thereby organises biochemical processes at the DNA replication fork. PCNA thereby assumes important functions in DNA synthesis, repair and processing, the regulation of cell cycle and even apoptosis.

Anti-PCNA antibodies occur in systemic lupus, where they represent a rare specificity (< 10 % of SLE patients). However, their presence alone or in combination with other autoantibodies should alert the clinician to the presence of defined or evolving SLE.

Recombinant Human PCNA produced in SF9 is a glycosylated, polypeptide chain having a molecular mass of 29,794 dalton.

Recombinant PCNA is expressed with a -6xHis tag and purified by proprietary chromatographic techniques.

#### Physical Appearance:

Sterile filtered colorless solution.

#### Formulation:

Recombinant Human PCNA is supplied at a of 0.9mg/ml in 16mM HEPES buffer pH-8, 250mM sodium chloride, and 20% glycerol.

#### Stability:

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

**Please avoid freeze-thaw cycles.**

#### Purity:

Greater than 90% (SDS-PAGE).

#### Immunological functions:

1. Binds IgG-type human auto-antibodies.
2. Standard ELISA test (checker-board analysis of positive/negative sera panels, immuno-dot analysis with validated SLE patient sera)

#### Applications:

Western-Blot with monoclonal anti-hexa-His-tag antibody & Scleroderma patient sera.

#### Coating concentration:

0.5-1.1 µg/ml (depending on the type of ELISA plate and coating buffer).

Suitable for biotinylation and iodination.

#### Usage:

This material is offered for research, laboratory or further evaluation purposes.

#### Gene:

Name:PCNA

➤ **Protein synonyms/aliases:**

Proliferating cell nuclear antigen (PCNA)  
(Cyclin).

➤ **Protein Family:**

Belongs to the PCNA family.

➤ **Precursor Domain architecture:**



Domains found:

- Proliferating cell nuclear antigen, PCNA

➤ **Latest Publications:**

1. Phosphorylation of human DNA polymerase lambda by the cyclin-dependent kinase Cdk2/cyclin A complex is modulated by its association with proliferating cell nuclear antigen. *Nucleic Acids Res* 2005 Sep 20;33(16):5354-61
2. Identification of the critical region in replication factor C from *Pyrococcus furiosus* for the stable complex formation with proliferating cell nuclear antigen and DNA. *Genes Genet Syst* 2005 Apr;80(2):83-93
3. The proliferating cell nuclear antigen regulates retinoic acid receptor transcriptional activity through direct protein-protein interaction. *Nucleic Acids Res* 2005 Jul 29;33(13):4311-21
4. Ultrasound stimulation of tendon cell proliferation and upregulation of proliferating cell nuclear antigen. *J Orthop Res* 2005 Jul;23(4):970-6
5. A novel PDIP1-related protein, KCTD10, that interacts with proliferating cell nuclear antigen and DNA polymerase delta. *Biochim Biophys Acta* 2005 Jul 10;1729(3):200-3
6. DNA polymerase lambda directly binds to proliferating cell nuclear antigen through its confined C-terminal region. *Genes Cells* 2005 Jul;10(7):705-15