

# Recombinant Proliferating Cell Nuclear Antigen, GST-tagged

**Cat. No.** PCNA-4488H    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | PCNA full length Human Recombinant protein produced in E.Coli is a single, non-glycosylated polypeptide chain having a molecular mass of 62kDa which includes GST-tag fusion protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>         | PCNA is located in the nucleus and is a cofactor of DNA polymerase delta. PCNA acts as a homotrimer and helps elevate the processivity of leading strand synthesis during DNA replication. In reaction to DNA damage, PCNA is ubiquitinated and takes part in the RAD6-dependent DNA repair pathway. 2 transcript variants encoding the same protein have been found for PCNA gene. Pseudogenes of this PCNA gene have been described on chromosome 4 and on the X chromosome. PCNA is expressed during late G1- phase, S-phase of mitosis and persists until the end of the M-phase because of its long biological half-life. PCNA is induced by UV irradiation. |
| <b>Form</b>                | The PCNA solution contains 50mM Tris-Acetate pH-7.5 & 1mM EDTA & 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Physical Appearance</b> | Sterile Filtered colorless solution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>             | PCNA although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

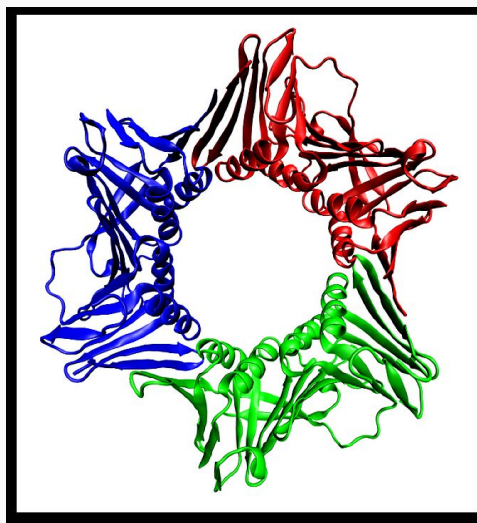
|                            |                                                                                                                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pathways</b>            | Base excision repair; Cell cycle; DNA replication; Mismatch repair; Nucleotide excision repair; Cell Cycle, Mitotic; DNA Repair; DNA Replication; Telomere Maintenance                                          |
| <b>Full Length</b>         | Full L.                                                                                                                                                                                                         |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                 |
| <b>Gene Name</b>           | PCNA proliferating cell nuclear antigen [ Homo sapiens ]                                                                                                                                                        |
| <b>Official Symbol</b>     | PCNA                                                                                                                                                                                                            |
| <b>Synonyms</b>            | MGC8367; PCNA; Proliferating cell nuclear antigen; Cyclin; proliferating cell nuclear antigen; cyclin; DNA polymerase delta auxiliary protein                                                                   |
| <b>Gene ID</b>             | 5111                                                                                                                                                                                                            |
| <b>mRNA Refseq</b>         | NM_002592                                                                                                                                                                                                       |
| <b>Protein Refseq</b>      | NP_002583                                                                                                                                                                                                       |
| <b>MIM</b>                 | 176740                                                                                                                                                                                                          |
| <b>UniProt ID</b>          | P12004                                                                                                                                                                                                          |
| <b>Chromosome Location</b> | 20pter-p12                                                                                                                                                                                                      |
| <b>Function</b>            | DNA binding; DNA polymerase processivity factor activity; MutLalpha complex binding; dinucleotide insertion or deletion binding; protein binding; purine-specific mismatch base pair DNA N-glycosylase activity |

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The assembled  
human DNA clamp, a  
trimer of the protein  
PCNA.



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