

Anti- PCNA antibody, rabbit serum

70-080 100 ul

Proliferating cell nuclear antigen (PCNA) is a 29 kDa homotrimeric protein known to act as a co-factor for DNA polymerase δ , which is responsible for leading strand DNA replication. **PCNA** was originally identified as an antigen that is expressed in the nuclei of cells during the DNA synthesis phase of the cell cycle. Crystal structure data suggests that a **PCNA** homotrimer ring can encircle and slide along the DNA double helix. Multiple proteins involved in DNA replication, DNA repair, and cell cycle control bind to **PCNA** rather than directly associating with DNA, thus facilitating fast processing of DNA. **PCNA** is a useful marker for DNA synthesis and is highly conserved among most species.

Applications:

1. Western blotting (dilution: 1/2,000)

Other applications have not been tested.

Immunogen: Purified recombinant human PCNA (full-size, no-tag)

Specificity: Reacts with mammalian PCNA including human, mouse, and rat. May react with chicken and Xenopus from sequence homology.

Form: Antiserum added with 0.05% sodium azide

Storage: Shipped at 4°C. Aliquot and store at -20°C

Data Link: Swiss-Prot [P12004](#) (human), [P04961](#) (rat), [P17918](#) (mouse), [Q9PTP1](#) (Zebrafish)

References:

1. Friedberg EC *et al* (2006) *DNA repair and mutagenesis*, 2nd Edition, ASM Press Washington, D.C.
2. Ohta S *et al* (2002) "A proteomics approach to identify proliferating cell nuclear antigen (PCNA)-binding proteins in human cell lysates. Identification of the human CHL12/RFCs2-5 complex as a novel PCNA-binding protein." *J Biol Chem* **277**: 40362-40367 PMID: [12171929](#)
3. Iida T *et al* (2002) "PCNA clamp facilitates action of DNA cytosine methyltransferase 1 on hemimethylated DNA." *Genes Cells* **7**: 997-1007 PMID: [12354094](#)

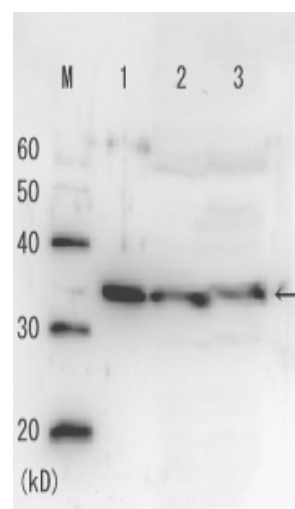


Fig.1 Western blotting of PCNA protein using this antibody.

M: molecular size marker

lane1: Purified PCNA, 10 ng

lane2: HeLa cell extract

lane3: MCF7 cell extract

PCNA migrates as a protein with apparent molecular mass of ~34 kDa

Related product: [#10-151](#) PCNA, functional