

**Anti- PCNA antibody, rabbit polyclonal, Validated with PCNA protein**70-080     100  $\mu$ g

**Validation:** Specificity has been validated by WB with purified full-size PCNA protein (Fig.2).

**Storage:** Shipped at 4°C and store at -20°C (Avoid freezing by storing below -25°C)

**Reactivity:** Mammalian PCNA including human, mouse, rat, hamster, and PCNA of chicken, *Xenopus*

**Immunogen:** Purified recombinant human PCNA (full-size, no-tag attached , BioAcademia #10-151)

**Applications:**

1. Western blotting (1/1,000-1/2,000 dilution)
2. Immuno-precipitation (1/100-1/500)
3. Immuno-fluorescence staining / Immuno-cytochemistry (1/100~1/1,000 dilution)
4. Dot blot (1/500~1/2,000). Could detect less than 0.3 ng of PCNA
5. ELISA (1/500~1/2,000). Could detect less than 1 ng of PCNA by direct ELISA.

**Form:** Purified IgG, 1 mg/ml in PBS, 50% glycerol. Filter sterilized. No preservative nor carrier protein added.

**Background:** Proliferating cell nuclear antigen (**PCNA**) is a 29 kDa homotrimeric protein known to act as a co-factor for DNA polymerase delta, 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.

**Data Link:** Swiss-Prot [P12004](#) (human), [P04961](#) (rat), [P17918](#) (mouse), [P18248](#) (*Xenopus laevis*)

**Reference:** No publication yet using this antibody.

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

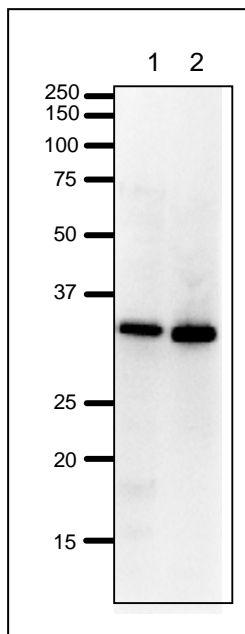


COSMO BIO CO., LTD.

TOKYO JAPAN  
TEL : (81)3-5632-9617  
FAX : (81)3-5632-9618  
e-mail : export@cosmobio.co.jp



www.cosmobio.com



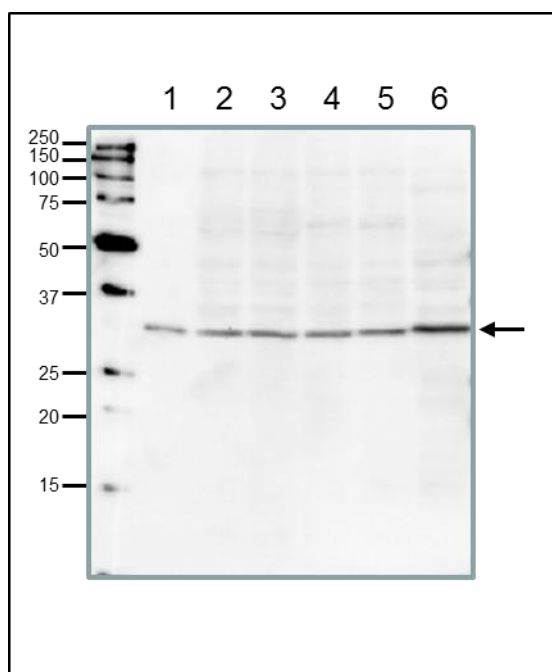
**Fig.1 Western Blot of PCNA in HeLa cells and Xenopus egg extract.**

Anti-PCNA antibody was used at 1/1,000 dilution. Second antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

1. HeLa cell extract (20  $\mu$ g)

2. Xenopus egg extract (20  $\mu$ g)

Molecular mass of PCNA is 29 kDa



**Fig.2 Western blot of PCNA in the whole cell extracts.**

Anti-PCNA antibody was used at 1/1,000 dilution. Second antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

1. Full-size recombinant human PCNA protein (5 ng)

2. HeLa (human), 20  $\mu$ g

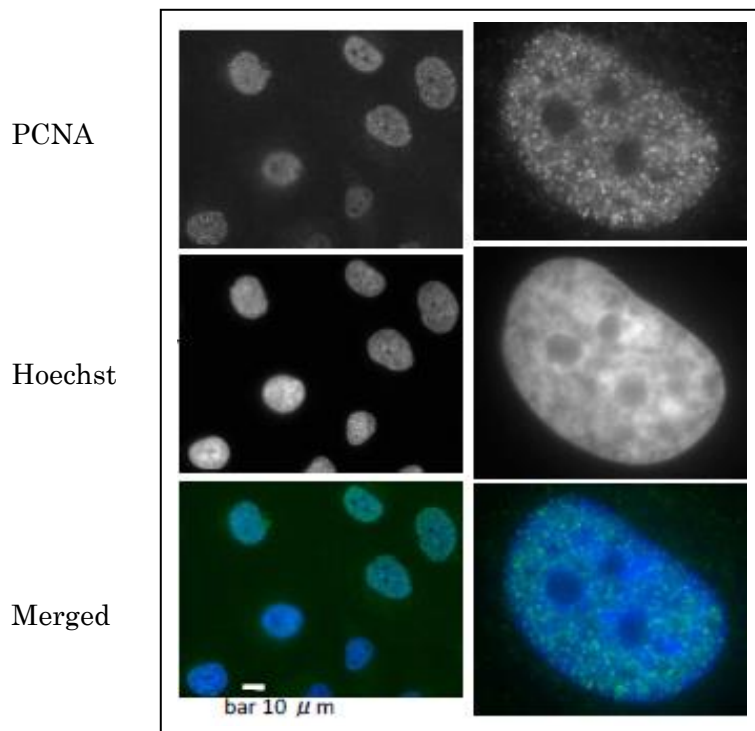
3. MCF7 (human), 20  $\mu$ g

4. NIH3T3 (mouse), 20  $\mu$ g

5. CHO (hamster), 20  $\mu$ g

6. Xenopus laevis egg (frog), 20  $\mu$ g





**Fig.3 Immuno-fluorescence staining of PCNA. in GM0637 cells (human fibroblast ).** Cells were fixed with 4% paraformaldehyde, permeabilized with 0.5% Triton and added with the antibody at 1/100 dilution. As the second antibody, goat anti-rabbit IgG conjugated with Alexa 488 was used at 1/10,000 dilution. DNA was stained with Heachst.

PCNA foci were detected in the nuclei

