

**PCNA Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2835c****Specification**

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**PCNA Antibody (Center) - Product Information**

Application	IF, WB, IHC-P, FC,E
Primary Accession	<a href="#">P12004</a>
Other Accession	<a href="#">P04961</a> , <a href="#">P17918</a> , <a href="#">P61258</a> , <a href="#">P57761</a> , <a href="#">Q9DEA3</a> , <a href="#">Q3ZBW4</a>
Reactivity	Human
Predicted	Bovine, Chicken, Hamster, Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	28769
Antigen Region	89-117

**PCNA Antibody (Center) - Additional Information****Gene ID** 5111**Other Names**

Proliferating cell nuclear antigen, PCNA, Cyclin, PCNA

**Target/Specificity**

This PCNA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 89-117 amino acids from the Central region of human PCNA.

**Dilution**IF~~1:10~50  
WB~~1:1000  
IHC-P~~1:10~50  
FC~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

PCNA Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**PCNA Antibody (Center) - Protein Information**

**Name** PCNA

**Function** Auxiliary protein of DNA polymerase delta and epsilon, is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand (PubMed:[35585232](#)). Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (AP) endonuclease, APEX2 activities. Has to be loaded onto DNA in order to be able to stimulate APEX2. Plays a key role in DNA damage response (DDR) by being conveniently positioned at the replication fork to coordinate DNA replication with DNA repair and DNA damage tolerance pathways (PubMed:[24939902](#)). Acts as a loading platform to recruit DDR proteins that allow completion of DNA replication after DNA damage and promote postreplication repair: Monoubiquitinated PCNA leads to recruitment of translesion (TLS) polymerases, while 'Lys-63'-linked polyubiquitination of PCNA is involved in error-free pathway and employs recombination mechanisms to synthesize across the lesion (PubMed:[24695737](#)).

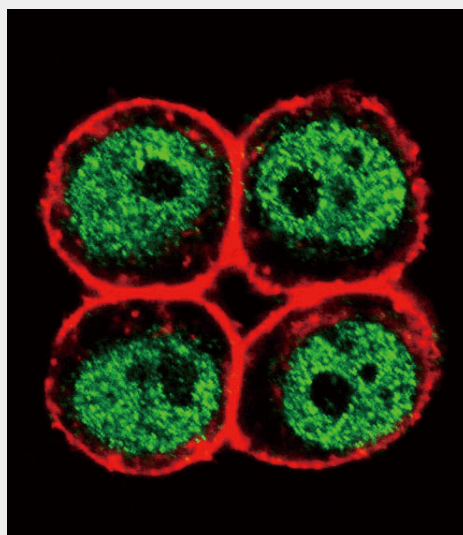
**Cellular Location**

**Nucleus Note**=Colocalizes with CREBBP, EP300 and POLD1 to sites of DNA damage (PubMed:[24939902](#)). Forms nuclear foci representing sites of ongoing DNA replication and vary in morphology and number during S phase (PubMed:[15543136](#)). Co-localizes with SMARCA5/SNF2H and BAZ1B/WSTF at replication foci during S phase (PubMed:[15543136](#)). Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents.

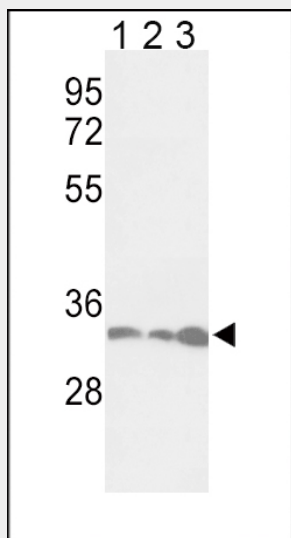
**PCNA Antibody (Center) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

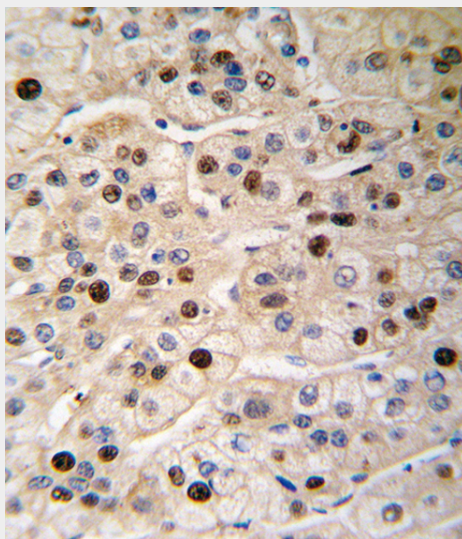
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**PCNA Antibody (Center) - Images**

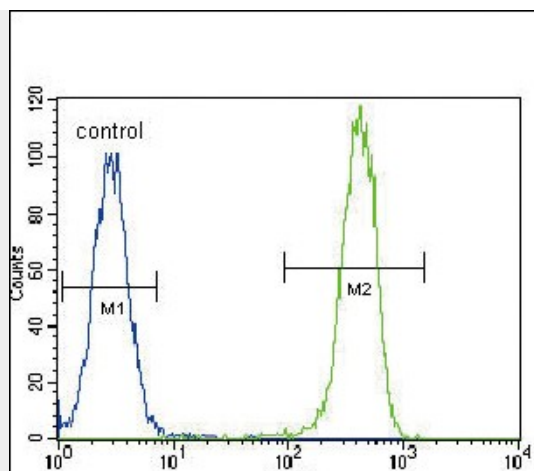
Confocal immunofluorescent analysis of PCNA Antibody (Center)(Cat#AP2835c) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



Western blot analysis of PCNA Antibody (Center) (Cat.#AP2835c) in Jurkat(lane 1), Hela(lane 2), 293(lane 3) cell line lysates (35ug/lane). PCNA (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PCNA antibody (Center) (Cat. #AP2835c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



PCNA Antibody (Center) (Cat. #AP2835c) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **PCNA Antibody (Center) - Background**

PCNA is found in the nucleus and is a cofactor of DNA polymerase delta. This protein acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway.

#### **PCNA Antibody (Center) - References**

- Wang, Y., J. Cell. Biochem. 106 (3), 409-413 (2009)
- Maga, G., Proc. Natl. Acad. Sci. U.S.A. 105 (52), 20689-20694 (2008)
- Acharya, N., Proc. Natl. Acad. Sci. U.S.A. 105 (46), 17724-17729 (2008)