

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

Specification

PCNA Antibody (Center) - Product Information

Application	IF, WB, IHC-P, FC, E
Primary Accession	P12004
Other Accession	P04961 , P17918 , P61258 , P57761 , Q9DEA3 , Q3ZBW4
Reactivity Predicted	Human Bovine, Chicken, Hamster, Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
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.

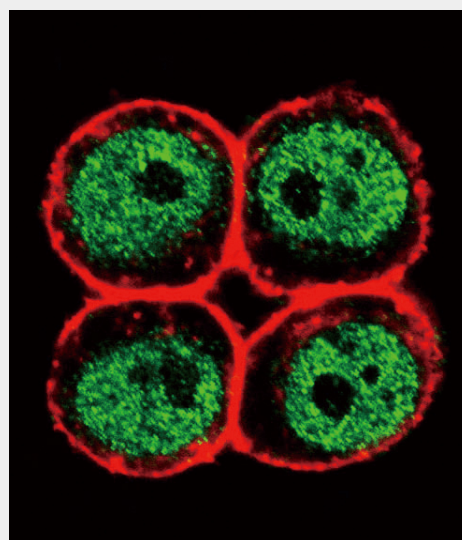
Dilution

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

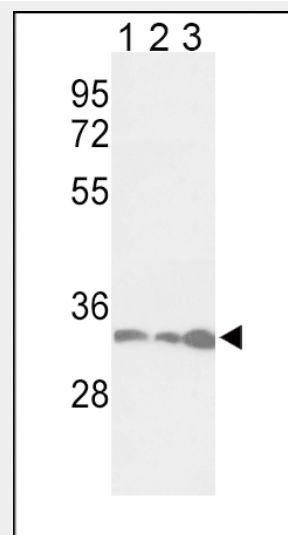
Format

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



Confocal immunofluorescent analysis of PCNA Antibody (Center) (Cat#AP2835c) with HeLa cells 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.

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

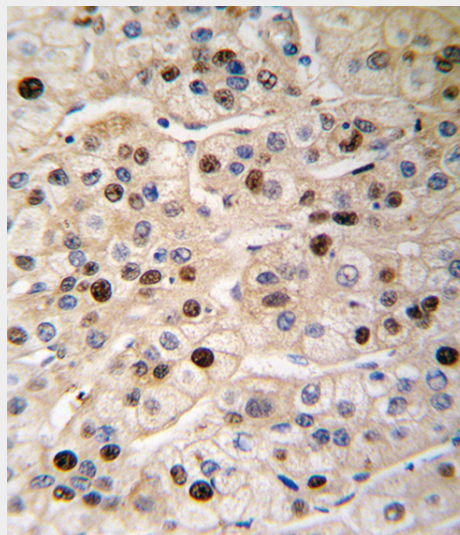
Name PCNA

Function

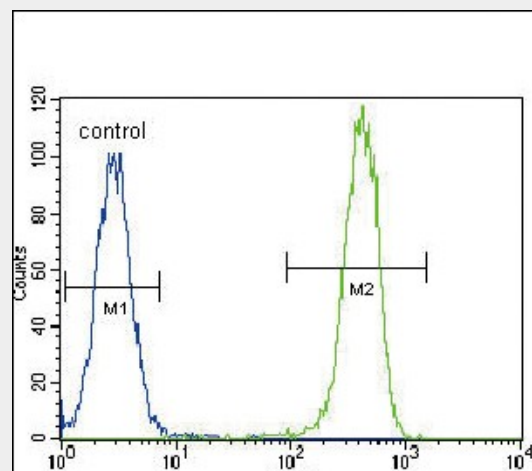
Auxiliary protein of DNA polymerase delta and is involved in the control of eukaryotic DNA replication by increasing the polymerase's processivity during elongation of the leading strand. Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (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. Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents



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,

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](#)

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)