For Research Use Only

PCNA Polyclonal antibody

Catalog Number:10205-2-AP Featured Product 807 Publications

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Basic Information

Catalog Number:
10205-2-AP

Size:
150ul , Concentration: 550 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG0277

GenBank Accession Number:
BC000491

GeneID (NCBI):
5111

Full Name:
proliferating cell nuclear antigen

Calculated MW:
29 kDa/31 kDa

Observed MW:
36-38 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:1500-1:6000
IF 1:300-1:1200

Applications

Tested Applications:
FC, IF, IHC, IP, WB, ELISA

Cited Applications:
Cell treatment, CoIP, ELISA, IF, IHC, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, goat, chicken, medaka embryos, rat, sheep, mouse, ducks, rabbit, fish

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A431 cells, mouse testis tissue, Raji cells, Jurkat cells, NIH/3T3 cells, HepG2 cells, mouse liver tissue, rat liver tissue, rat testis tissue, HEK293 cells, HeLa cells, MCF-7 cells, PC-12 cells, C2C12 cells, mouse spleen tissue

IP : MCF-7 cells, N/A

IHC : human stomach cancer tissue, human liver cancer tissue, human malignant melanoma tissue, human breast cancer tissue, human colon cancer tissue

IF : HepG2 cells, human breast cancer tissue, MCF-7 cells, mouse testis tissue, Neuro-2a cells

Background Information

Proliferating Cell Nuclear Antigen, commonly known as PCNA, is a protein that acts as a processivity factor for DNA polymerase δ in eukaryotic cells. This protein is an auxiliary protein of DNA polymerase delta and is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand. PCNA induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (AP) endonuclease, APEX2 activities. It has to be loaded onto DNA in order to be able to stimulate APEX2. PCNA protein is highly conserved during evolution; the deduced amino acid sequences of rat and human differ by only 4 of 261 amino acids. PCNA has been used as loading control for proliferating cells. This antibody is a rabbit polyclonal antibody raised against an internal region of human PCNA. The calculated molecular weight of PCNA is 29 kDa, but modified PCNA is 36kDa (PMID: 1358458).

Notable Publications

Author	Pubmed ID	Journal	Application
Yongchun Yu	36183674	Transl Oncol	WB
Bing Sun	27684953	PLoS One	WB
Xiaobing Zhao	36169673	J Mol Med (Berl)	WB

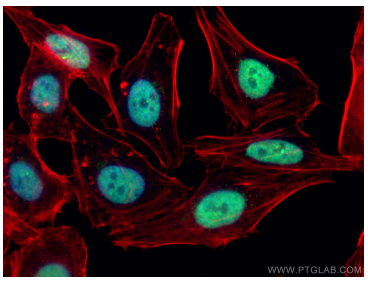
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

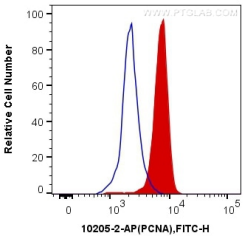
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

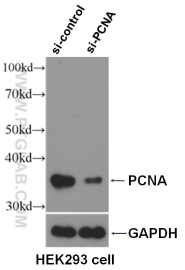
Selected Validation Data



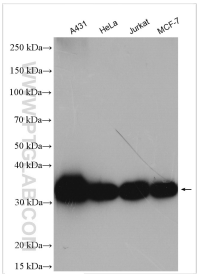
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using PCNA antibody (10205-2-AP) at dilution of 1:600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL94-phalloidin (red), DAPI (Blue).



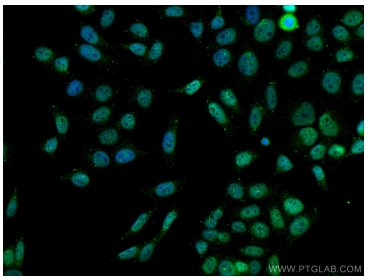
1X10^6 Jurkat cells were intracellularly stained with 0.2 ug Anti-Human PCNA (10205-2-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), and 0.2 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



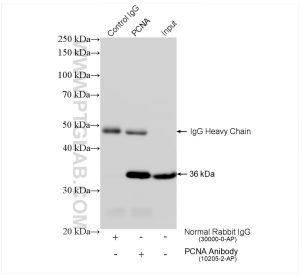
WB result of PCNA antibody (10205-2-AP, 1:10000) with si-control and si-PCNA transfected HEK293 cells.



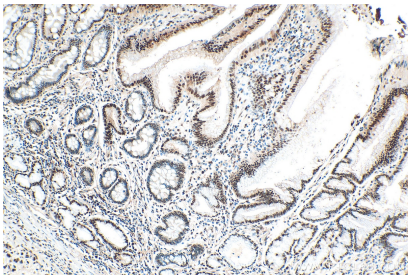
Various lysates were subjected to SDS PAGE followed by western blot with 10205-2-AP (PCNA antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



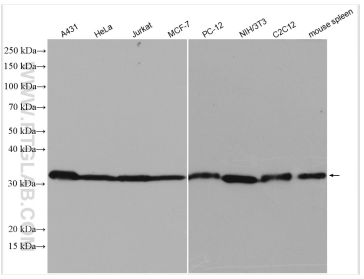
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 10205-2-AP (PCNA antibody), at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



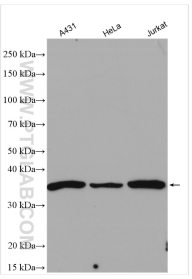
IP result of anti-PCNA(IP:10205-2-AP, 4ug; Detection:10205-2-AP 1:20000) with MCF-7 cells lysate 1880 ug.



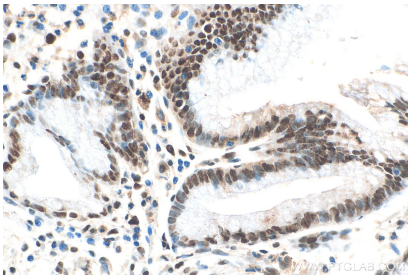
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 10205-2-AP (PCNA antibody) at dilution of 1:3000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



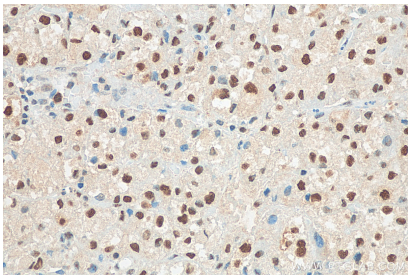
Various lysates were subjected to SDS PAGE followed by western blot with 10205-2-AP (PCNA antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



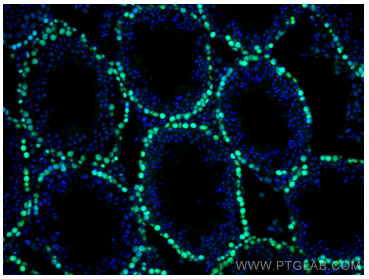
Various lysates were subjected to SDS PAGE followed by western blot with 10205-2-AP (PCNA antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



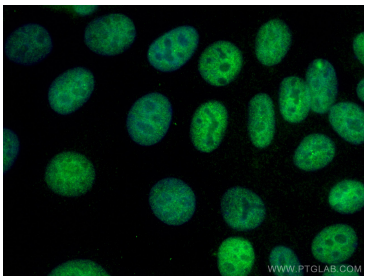
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 10205-2-AP (PCNA antibody) at dilution of 1:3000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 10205-2-AP (PCNA antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse testis tissue using PCNA antibody (10205-2-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using PCNA antibody (10205-2-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).