bs-2007R **[Primary Antibody]**

PCNA Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5111 **SWISS:** P12004

Target: PCNA

Immunogen: KLH conjugated synthetic peptide derived from human PCNA: 201-261/261.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Proliferating cell nuclear antigen (PCNA) is a 28kDa nuclear protein associated with the cell cycle, a nuclear protein vital for cellular DNA synthesis. Proliferating cell nuclear antigen was originally identified by immunofluorescence as a nuclear protein whose appearance correlated with the proliferate state of the cell. PCNA is required for replication of DNA in vitro and has been identified as the auxiliary protein (cofactor) for DNA polymerase delta. The anti-PCNA antibodies react with the nuclei of proliferating cells. PCNA is essential for cellular DNA synthesis and is also required for the in vitro replication of simian virus 40 (SV40) DNA where it acts to coordinate leading and lagging strand synthesis at the replication fork. The PCNA protein may fulfil several separate roles in the cell nucleus associated with changes in its antigenic structure.

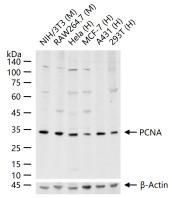
Applications: **WB** (1:500-2000)
IHC-P (1:200-800)
IHC-F (1:200-800)
IF (1:200-800)
Flow-Cyt (1μg/Test)

Reactivity: Human, Mouse, Rat (predicted: Cow)

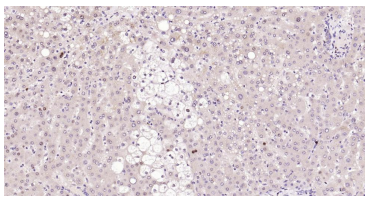
Predicted MW.: 29 kDa

Subcellular Location: Nucleus

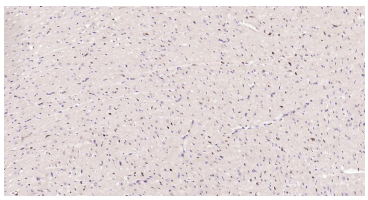
VALIDATION IMAGES



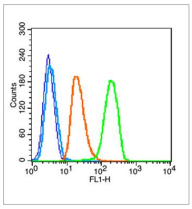
25 ug total protein per lane of various lysates (see on figure) probed with PCNA polyclonal antibody, unconjugated (bs-2007R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



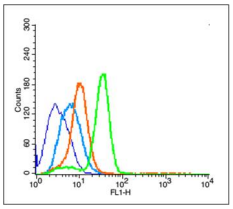
Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with PCNA Polyclonal Antibody, Unconjugated (bs-2007R) at 1:500 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Rat Heart; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with PCNA Polyclonal Antibody, Unconjugated (bs-2007R) at 1:500 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



sample: A549 cells((blue) Ice-cold 70% ethanol was added and the cells were incubated for overnight at 4 °C. and then resuspended in ice-cold 90% methanol for 30 min on ice.) Primary



Blank control (blue line): U251 (blue). Primary Antibody (green line): Rabbit Anti-PCNA antibody (bs-2007R) Dilution: 3μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit

Antibody:Rabbit Anti-PCNA antibody(bs-2007R) (green) Isotype Control Antibody: Rabbit IgG (orange) Secondary Antibody: F(ab')2 fragment goat anti-rabbit IgG-FITC (white blue)

IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE Dilution: 1μg /test. Protocol The cells were fixed with 2% paraformaldehyde (10 min)and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=14.593]** Guo-Bin Ding. et al. Molecularly engineered tumor acidity-responsive plant toxin gelonin for safe and efficient cancer therapy. Bioact Mater. 2022 Feb;: IHC ;Mouse. 10.1016/j.bioactmat.2022.02.001
- **[IF=13.352]** Guangdong Bai. et al. Perinatal exposure to glyphosate-based herbicides impairs progeny health and placental angiogenesis by disturbing mitochondrial function. ENVIRON INT. 2022 Dec;170:107579 IF ;Pig. 36265358
- **[IF=12.4]** Zhiyong Shi. et al. A novel selenium analog of HDACi-based twin drug induces apoptosis and cell cycle arrest via CDC25A to improve prostate cancer therapy. THERANOSTICS. 2024; 14(9): 3565–3582 WB ;Mouse. 38948069
- **[IF=11.092]** Zhongqing Liu. et al. Crocetin Regulates Functions of Neural Stem Cells to Generate New Neurons for Cerebral Ischemia Recovery. ADV HEALTHC MATER. 2023 Mar;:2203132 ICC ;Mouse. 37001492
- **[IF=11.205]** Cong Lan. et al. Inhibition of DYRK1A, via histone modification, promotes cardiomyocyte cell cycle activation and cardiac repair after myocardial infarction. EBIOMEDICINE. 2022 Aug;82:104139 WB ;Rat. 35810562