

# PCNA (2Q483): sc-71862



The Power to Question

## BACKGROUND

The proliferating cell nuclear antigen (PCNA), a protein synthesized in early G<sub>1</sub> and S phases of the cell cycle, functions in cell cycle progression, DNA replication and DNA repair. In early S phase, PCNA exhibits granular distribution and is absent from the nucleoli; however, in late S phase, it relocates to the nucleoli. PCNA exists in two basic forms: one involved in ongoing DNA replication, which localizes specifically to the nucleus, and a second, soluble form, not implicated in constant synthesis. Interestingly, the latter form degrades in the presence of organic solvents, rendering it undetectable by histological methods in tissues using organic fixatives, and thus also providing a method of visualizing only the synthesizing form.

## REFERENCES

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- Thacker, S.A., et al. 2003. The contribution of E2F-regulated transcription to *Drosophila* PCNA gene function. *Curr. Biol.* 13: 53-58.
- Hong, R., et al. 2003. The human proliferating cell nuclear antigen regulates transcriptional co-activator p300 activity and promotes transcriptional repression. *J. Biol. Chem.* 278: 44505-44513.
- Kwon, E., et al. 2004. Armadillo/Pangolin regulates PCNA and DREF promoter activities. *Biochim. Biophys. Acta* 1679: 256-262.
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## CHROMOSOMAL LOCATION

Genetic locus: PCNA (human) mapping to 20p12.3; PcnA (mouse) mapping to 2 F2.

## SOURCE

PCNA (2Q483) is a mouse monoclonal antibody raised against rat PCNA made in the protein A expression vector pR1T2T.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

PCNA (2Q2Q19799) is recommended for detection of PCNA p36 protein expressed at high levels in proliferating cells of mouse, rat, human, insect and *S. pombe* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for PCNA siRNA (h): sc-29440, PCNA siRNA (m): sc-29441, PCNA shRNA Plasmid (h): sc-29440-SH, PCNA shRNA Plasmid (m): sc-29441-SH, PCNA shRNA (h) Lentiviral Particles: sc-29440-V and PCNA shRNA (m) Lentiviral Particles: sc-29441-V.

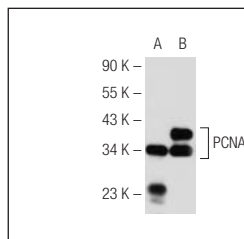
Molecular Weight of PCNA: 36 kDa.

Positive Controls: PCNA (h): 293T Lysate: sc-159920, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-22017.

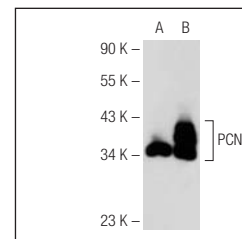
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

## DATA



PCNA (2Q483): sc-71862. Western blot analysis of PCNA expression in non-transfected: sc-117752 (A) and human PCNA transfected: sc-170834 (B) 293T whole cell lysates.



PCNA (2Q483): sc-71862. Western blot analysis of PCNA expression in non-transfected: sc-117752 (A) and human PCNA transfected: sc-159920 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.