

# PCNA (C-20): sc-9857

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: PCNA (human) mapping to 20p13; PcnA (mouse) mapping to 2 F2.

## SOURCE

PCNA (C-20) is available as either goat (sc-9857) or rabbit (sc-9857-R) affinity purified polyclonal antibody raised against a peptide mapping at the C-terminus of PCNA of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9857 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-9857 AC, 500 µg/0.25 ml agarose in 1 ml; as fluorescein (sc-9857 FITC) or rhodamine (sc-9857 TRITC) conjugates for immunofluorescence, 200 µg/ml; and as Alexa Fluor® 405 (sc-9857 AF405), Alexa Fluor® 488 (sc-9857 AF488) or Alexa Fluor® 647 (sc-9857 AF647) conjugates for immunofluorescence; 100 µg/2 ml.

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## APPLICATIONS

PCNA (C-20) is recommended for detection of PCNA of mouse, rat, human and *Xenopus laevis* 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PCNA (C-20) is also recommended for detection of PCNA in additional species, including equine, canine, bovine, porcine and avian.

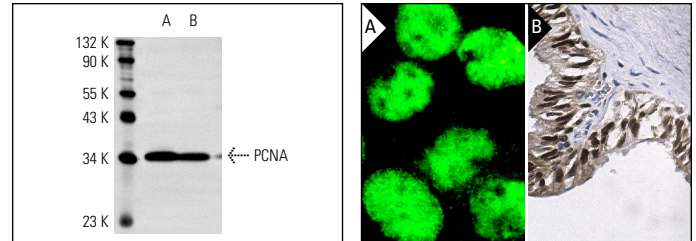
Suitable for use as control antibody for PCNA siRNA (h): sc-29440, PCNA siRNA (m): sc-29441, PCNA shRNA Plasmid (h): sc-29440-SH, PCNA shRNA Plasmid (m): sc-29441-SH, PCNA shRNA (h) Lentiviral Particles: sc-29440-V and PCNA shRNA (m) Lentiviral Particles: sc-29441-V.

Molecular Weight of PCNA: 36 kDa.

## STORAGE

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

## DATA



PCNA (C-20): sc-9857. Western blot analysis of PCNA expression in A-431 (A) and NIH/3T3 (B) whole cell lysates.

PCNA (C-20): sc-9857. Immunofluorescence staining of methanol-fixed A-431 cells showing nuclear staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts (B).

## SELECT PRODUCT CITATIONS

- Day, K.C., et al. 2002. Rescue of embryonic epithelium reveals that the homozygous deletion of the retinoblastoma gene confers growth factor independence and immortality but does not influence epithelial differentiation or tissue morphogenesis. *J. Biol. Chem.* 277: 44475-44484.
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- Wu, G.J., et al. 2011. Enforced expression of METCAM/MUC18 increases tumorigenesis of human prostate cancer LNCaP cells in nude mice. *J. Urol.* 185: 1504-1512.
- Weigent, D.A. 2011. High molecular weight isoforms of growth hormone in cells of the immune system. *Cell. Immunol.* 271: 44-52.
- Walsh, S.B., et al. 2011. Cyclosporine a mediates pathogenesis of aggressive cutaneous squamous cell carcinoma by augmenting epithelial-mesenchymal transition: role of TGFβ signaling pathway. *Mol. Carcinog.* 50: 516-527.
- Canale-Zambrano, J.C. and Haston, C.K. 2011. IGF binding protein-3 treatment alters intestinal cell proliferation but not body weight of adult cystic fibrosis transmembrane conductance regulator deficient mice. *Pediatr. Res.* 69: 129-134.

## RESEARCH USE

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


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Try **PCNA (PC10): sc-56** or **PCNA (F-2): sc-25280**, our highly recommended monoclonal alternatives to PCNA (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PCNA (PC10): sc-56**.