PCNA (PC10): sc-56

BACKGROUND
The proliferating cell nuclear antigen (PCNA), a protein synthesized in early G1 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 (PC10) is a mouse monoclonal antibody raised against rat PCNA made in the protein A expression vector pR1T2T.

PRODUCT
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PCNA (PC10) is available conjugated to agarose (sc-56 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-56 PE), fluorescein (sc-56 FITC), Alexa Fluor® 488 (sc-56 AF488) or Alexa Fluor® 647 (sc-56 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

In addition, PCNA (PC10) is available conjugated to biotin (sc-56 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to either TRITC (sc-56 TRITC, 200 µg/ml), PerCP (sc-56 PerCP), PerCP-Cy5.5 (sc-56 PCPC5) or Alexa Fluor® 405 (sc-56 AF405), 100 tests in 2 ml, for IF, IHC(P) and FCM.

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APPLICATIONS
PCNA (PC10) 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 10⁶ 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: A-431 whole cell lysate: sc-2201.

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

DATA

SELECT PRODUCT CITATIONS

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