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Product datasheet for AM10035PU-N

PCNA Mouse Monoclonal Antibody [Clone ID: PC10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	PC10
Applications:	IF, IHC, WB
Recommended Dilution:	**Immunohistochemistry and Immunocytochemistry Frozen or Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections and cell smears).** For IHC dilute conc. antibody at 1/50-1/200, use streptavidin~biotin system or polymer system, incubate 30 minutes at room temperature. FFPE tissue section requires antigen retriever (boiling tissue in 10 mM citrate, pH 6.0 for 20 mins, followed by cooling at RT for 20 mins). ***Recommended Positive Control:*** Human tonsil, lymph node. **Western Blot:** 1/100-1/400.
Reactivity:	Human, Insect, Mouse, Rat, Yeast
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant Rat PCNA protein.
Specificity:	This antibody is specific for PCNA. *PC10* reacts specifically with a 36kD nuclear protein of the Proliferating Cell Nuclear Antigen (PCNA). PCNA is an excellent marker of proliferative cells in routinely processed tissue sections. ***Cellular Localization:*** Nuclear.
Formulation:	PBS, pH 7.4 State: Purified State: Liquid purified IgG fraction Stabilizer: 1% BSA Preservative: 0.05% Sodium Azide
Concentration:	lot specific
Conjugation:	Unconjugated

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Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.

Stability: Shelf life: One year from despatch.

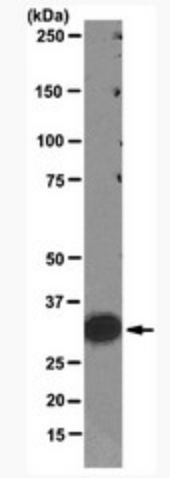
Gene Name: proliferating cell nuclear antigen

Database Link: Entrez Gene 5111 Human
P12004

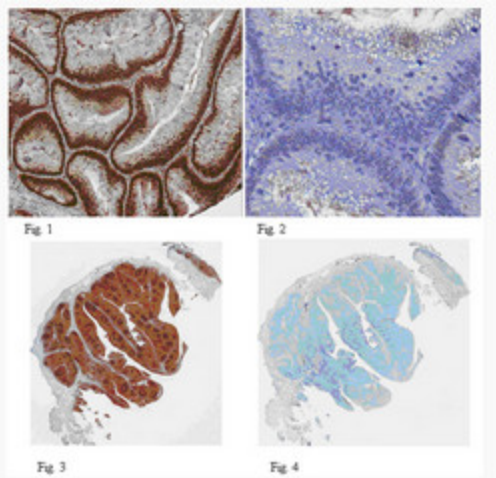
Background: Proliferating Cell Nuclear Antigen, commonly known as PCNA, is a protein that acts as a processivity factor for DNA polymerase delta in eukaryotic cells. The protein encoded by this gene is found in the nucleus and is a cofactor of DNA polymerase delta. The encoded protein acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway. Two transcript variants encoding the same protein have been found for this gene. Pseudogenes of this gene have been described on chromosome 4 and on the X chromosome. PCNA was originally identified as an antigen that is expressed in the nuclei of cells during the DNA synthesis phase of the cell cycle It is increased during late G1 phase and S phase of the cell cycle and declines during G2 and M phases.

Synonyms: Cyclin

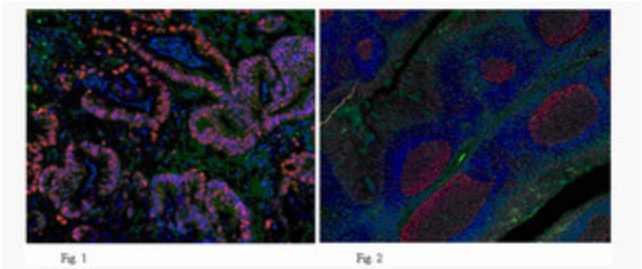
Product images:



HeLa cell lysate was probed with Anti-PCNA, clone PC10 (0.01 ug/mL). Proteins were visualized using a Goat Anti-Mouse IgG (H&L) secondary antibody conjugated to HRP and a chemiluminescence detection system. Arrow indicates (~29 kDa).



Formalin Fixed Paraffin Embedded (FFPE) human colon adenocarcinoma tissues (Fig. 1 and Fig. 2) and human tonsil tissues (Fig. 3 and Fig. 4) were probed using heat-induced epitope retrieval (HIER). Immunostaining was performed using a 1:1,000 dilution of Anti-PCNA, clone PC10. Reactivity was detected using an Anti-Mouse secondary antibody and HRP-DAB. Positive nuclear staining was observed in human colorectal adenocarcinoma tissues and in lymphocytes of human tonsil tissues (Fig. 2 and Fig. 4 illustrate the use of a negative control).



Immunofluorescent analysis of human colon adenocarcinomat tissue (Fig. 1) and human tonsil tissue (Fig. 2) were performed using Anti-PCNA, clone PC10 and visualized with a Donkey Anti-Mouse IgG secondary antibody conjugated to DyLight™ 549 fluorescent dye (Red). Actin filaments have been labeled with Alexa Fluor® 488 dye - Phalloidin (Green). Nuclei are stained with DAPI (Blue). This antibody positively stains the nucleus.