

Product Information

Anti-Proliferating Cell Nuclear Antigen antibody, Mouse monoclonal

clone PC 10, purified from hybridoma cell culture

Product Number **SAB4200708**

Product Description

Anti-Proliferating Cell Nuclear Antigen antibody (mouse IgG2a isotype) is derived from the PC 10 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with PCNA-Protein A fusion protein.¹ The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Proliferating Cell Nuclear Antigen (PCNA) specifically recognizes Proliferating Cell Nuclear Antigen from human, monkey, rat, mouse, insect and yeast origin.¹⁻³ Monoclonal Anti-Proliferating Cell Nuclear Antigen is recommended to use in various immunochemical assays, including ELISA, Immunoblotting (~36 kDa), Flow Cytometry, Immunoprecipitation, Immunofluorescence and Immunohistochemistry.^{1,4-8} Specific staining is observed in proliferating cell nuclei, particularly in germinal centers, in a wide range of normal and malignant tissues. Fixation duration can markedly affect the intensity of PCNA immunoreactivity, however delay in fixation time does not affect the immunoreactivity.⁹ In addition, an enzymatic treatment destroys the staining.

Proliferating Cell Nuclear Antigen (PCNA), also known as cyclin, is an auxiliary protein of DNA polymerase δ (delta) that is essential for chromosomal DNA replication during S-phase and is important for several DNA transactions, such as DNA repair, epigenetic modification, chromatin assembly and remodeling, sister chromatid cohesion and cell cycle control.¹⁰ PCNA distribution in the cell cycle increases through the G1 phase, peaks at the G1/S interphase followed by decrease in the G2 phase. PCNA is known as a prognostic and diagnostic marker in several diseases such as breast cancer, chronic lymphoid leukemia, non-Hodgkin's lymphoma, malignant and nonmalignant skin diseases and systemic lupus erythematosus.¹¹ Antibody to PCNA is a valuable Immunohistology tool for defining proliferative activity in diagnostic pathology.¹²

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1 μ g/mL is recommended using human foreskin fibroblast HS-68 cell line extract.

Immunofluorescence: a working concentration of 1.25-2.5 μ g/ml is recommended using HeLa cells.

Immunohistochemistry: a working concentration of 10 μ g/ml is recommended using heat-retrieved formalin-fixed, paraffin-embedded human tonsil sections.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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DR_OKF/LV,SG,PHC 09/16-1