ALPHA DIAGNOSTIC INTERNATIONAL

## Product Specification Sheet

## Human Proliferating Cell Nuclear Antigen (PCNA) antibodies and controls

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| ½ **Cat.** PCNA11-M | Mouse monoclonal anti-PCNA protein IgG | **SIZE**: 100 ul |
| ½ **Cat.** PCNA11-C | Human recombinant purified PCNA protein control for WB | **SIZE**: 100 ul |

Expression of proliferating cell nuclear antigen (PCNA) or cyclin or polymerase delta auxiliary protein is elevated in the nucleus during late G1 phase immediately before the onset of DNA synthesis, becoming maximal during S-phase and declining during G2 and M phases. PCNA/cyclin may act as an auxiliary protein of DNA polymerase delta to play a fundamental role in the initiation of cell proliferation.

Anti-PCNA antibodies occur in systemic lupus, where they represent a rare specificity (< 10 % of SLE patients). However, their presence alone or in combination with other autoantibodies should alert the clinician to the presence of defined or evolving SLE.

### Source of Antigen and Antibodies

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| **Antigen** | Recombinant human PCNA protein |
| **Ab Host/type** | Mouse clone (IgG2a) designated PC10 reacting specifically with PCNA, was expanded as ascites and purified |
| **2-Ab** | **Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)** |
| **-ve control IgG** | Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control |

Mouse IgG2b isotype control

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| 20102-102 | Mouse IgG2a isotype control, purified |
| 20102-102-B | Mouse IgG2a-Biotin conjugate (isotype control) |
| 20102-102-F | Mouse IgG2a-FITC conjugate (isotype control) |
| 20102-102-FP | Mouse IgG2a-FITC-PE conjugate (isotype control) |
| 20102-102-HP | Mouse IgG2a-HRP conjugate (isotype control) |
| 20102-102-PC5 | Mouse IgG2a-PE-Cy5 conjugate (isotype control) |
| 20102-102-PE | Mouse IgG2a-PE conjugate (isotype control) |

Human PCNA protein (**AAH00491, 1-262 aa)** was expressed in baculovirus as His-tag fusion protein (His-PCNA) and purified (>95%, mol wt ~30 Kda). For Western blot +ve control (**Cat # PCNA11-C)** is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **PCNA11**-C for good visibility with antibody Cat # **PCNA11**-M. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **PCNA11**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

### Form & Storage of Antibodies/Peptide Control

**Aff pure IgG**

☐ 100 ug/100 ul ☐ solution ☐ lyophilized powder contains 0.1% BSA and 0.05% azide
**Reconstitute powder** in 100 ul PBS

**Storage**

**Short-term**: unopened, undiluted vials for less than a week at 4oC.

**Long-term**: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability**: 6-12 months at –20oC or below.
**Shipping**: 4oC for solutions and room temp for powder.

### Recommended Usage

**Western Blotting** ~ 1-2 ug/ml or less for affinity pure using Chemiluminescence technique). mol wt ~34 kda in Jurkat, Hepg2 or 293 cell lysates.

**ELISA** (1:10K-1:100K; using 50-100 ng of control peptide/well).

### Specificity & Cross-reactivity

PCNA11-M antibody recognizes human PCNA. it also reacts with yeast, drosophila, rat, mouse, and chicken PCNA protein. Antibody crossreactivity in other species is not established. Human recombinant purified protein #PCNA11-C can be used as positive control.

**General References**: Yang A et al (1998) Mol Cell 2, 305-316; Kaghad, M et al (1997) Cell 90, 809-819.

*This product is for in vitro research use only.

**Related material available from ADI**

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| 5010 | Mouse Anti-Proliferating Cell Nuclear Antigen (PCNA) Ig's ELISA kit, 96 tests, Quantitative |
| PCNA11-C | Recombinant (sf9) human Proliferating Cell Nuclear Antigen (PCNA) protein control for WB |
| PCNA11-M | Monoclonal Anti-human Proliferating Cell Nuclear Antigen (PCNA) IgG, aff pure |
| PCNA12-A | Anti-human Proliferating Cell Nuclear Antigen (PCNA) IgG, aff pure |
| PCNA15-R-10 | Recombinant (baculovirus) purified human Proliferating Cell Nuclear Antigen (PCNA) protein |



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