ImmunoBioScience Corp. (IBSC) *DATA SHEET*

Proliferating Cell Nuclear Antigen (PCNA) Mouse MAb anti-rat

**Catalog number:** MM-1016-01 0.5 ml Concentrated IgG2a 0.2 mg/ml

MM-1016-02 1.0 ml Concentrated IgG2a 0.2 mg/ml

MM-1016-04 7.0 ml Prediluted for IHC IgG2a 5µg/ml

**Buffer** The antibodies are supplied with 1% BSA in PBS with 0.05% azide, pH 7.4. The Prediluted antibody is supplied in our Universal antibody dilution buffer (AR-6526) green in color.

**Description**: **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.

**Intended Use**: Immunohistochemistry (IHC) and Immunocytchemistry (ICC)

**Storage**: 2-8°C

**Clone**: 216 (PC10) **Isotype:** IgG2a/κ

**Epitope:** not known

**Molecular weight of antigen:** ~30 kDa

**Immunogen:** .Recombinant rat PCNA protein

**Species reactivity:** Human, mouse, rat, insect, yeast, others not tested.

**Cellular Localization:** Nuclear

**Recommended positive control:** Human tonsil, lymph node

**Application:** IHC, ICC (frozen or formalin–fixed paraffin-embedded (FFPE) tissue sections, cell smears) 1

For IHC dilute conc. antibodies 1:50-1:200, using streptavidin~biotin system or polymer system, incubate 30 minutes at room temperature.

Prediluted antibody is ready to be used for IHC.

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).

WB: 1: 100-1:400.

The optimum dilution should be determined by the individual lab.

**General References**

1. .Jain, S et.al. J Clin. Pathol. 44:, 655-659, 1991
2. Woods, AL et al. Histopathology. 19: 21-27, 1991
3. Huebener, P et. al. J Immunol. 180: 2655-2633, 2008
4. Oka, S et. al. EMBO. J 27: 421-433, 2008

**Limitation and warranty:** Our warranty is limited to the actual price paid for the product. We are not liable for any property damage, personnel injury, time, effort or economic loss due to our product.

**MSDS:** This product contains 0.05 % sodium azide as a preservative, appropriate care should be taken in handling. National Institute of Occupational Safety and Health has warning that sodium azide can react with lead, copper, brass or solder in the plumbing system and forms hydrazoic acid in acidic condition. Discard with copious amount of water. Avoid skin and eye contact with all laboratory products. Use appropriate lab. gear, lab coat , gloves and safety glasses. Do not ingest any lab. products. This product is not approved for administration in human or animals.

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