

Monoclonal Anti- Proliferating Cell Nuclear Antigen, PCNA

Catalog# BMA1034

Lot # Check on the product label

Size 100 µg

Isotype IgG1

Clone # M65-8

Host Mouse

Reactivity

Human, mouse, rat

Product Form Liquid

Purification Protein A purified

Immunogen

Recombinant PCNA protein.

Recommend Application

Western Blot, WB (1:500-1:1,000)

Immunohistochemistry, IHC-P (1:100)

Flow Cytometry, Flow-Cyt (1:1:50)

Other applications have not been tested.

The optimal dilutions should be determined by end user.

Storage Buffer

1*PBS (pH7.4), 0.2% BSA, 40% Glycerol and 0.05% Sodium Azide.

Storage Instruction

Store at 4°C after thawing (1 week).

Aliquot and store at -20°C for long term (at least one year).

Avoid repeated freeze and thaw cycles.

Background

Proliferating Cell Nuclear Antigen, commonly known as PCNA, is a protein that acts as a processivity factor for DNA polymerase δ in eukaryotic cells. [1] This

protein is an auxiliary protein of DNA polymerase delta and is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand. [2] It induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-aprimidinic (AP) endonuclease, APEX2 activities. And It has to be loaded onto DNA in order to be able to stimulate APEX2. [3]

Reference

1. Bowman GD, O'Donnell M, Kuriyan J (2004). "Structural analysis of a eukaryotic sliding DNA clamp-clamp loader complex". *Nature* 429 (6993): 724–730.
2. Burkovics P., Hajdu I., Szukacsov V., Unk I., Haracska L. "Role of PCNA-dependent stimulation of 3'-phosphodiesterase and 3'-5' exonuclease activities of human Ape2 in repair of oxidative DNA damage." *Nucleic Acids Res.* 37:4247-4255(2009)
3. Motegi A., Liaw H.-J., Lee K.-Y., Roest H.P., Maas A., Wu X., Moinova H., Markowitz S.D., Ding H., Hoeijmakers J.H.J., Myung K. "Polyubiquitination of proliferating cell nuclear antigen by HLTF and SHPRH prevents genomic instability from stalled replication forks." *Proc. Natl. Acad. Sci. U.S.A.* 105:12411-12416(2008)

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