

KD-Validated Anti-PCNA Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI1783**Specification****KD-Validated Anti-PCNA Mouse Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	P12004
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1 kappa
Calculated MW	Predicted, 29 kDa , observed , 35 kDa KDa
Gene Name	PCNA
Aliases	PCNA; Proliferating Cell Nuclear Antigen 2; Cyclin; DNA Polymerase Delta Auxiliary Protein; ATLD2
Immunogen	Recombinant protein of human PCNA

KD-Validated Anti-PCNA Mouse Monoclonal Antibody - Additional Information

Gene ID	5111
Other Names	
Proliferating cell nuclear antigen, PCNA, Cyclin, PCNA	

KD-Validated Anti-PCNA Mouse Monoclonal Antibody - Protein Information**Name** PCNA**Function**

Auxiliary protein of DNA polymerase delta and epsilon, is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand (PubMed:35585232). Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (AP) endonuclease, APEX2 activities. Has to be loaded onto DNA in order to be able to stimulate APEX2. Plays a key role in DNA damage response (DDR) by being conveniently positioned at the replication fork to coordinate DNA replication with DNA repair and DNA damage tolerance pathways (PubMed:24939902). Acts as a loading platform to recruit DDR proteins that allow completion of DNA replication after DNA damage and promote postreplication repair: Monoubiquitinated PCNA leads to recruitment of translesion (TLS) polymerases, while 'Lys-63'-linked polyubiquitination of PCNA is involved in error-free pathway and employs recombination mechanisms to synthesize across the lesion (PubMed:24695737).

Cellular Location

Nucleus. Note=Colocalizes with CREBBP, EP300 and POLD1 to sites of DNA damage (PubMed:24939902). Forms nuclear foci representing sites of ongoing DNA replication and vary in morphology and number during S phase (PubMed:15543136). Co-localizes with SMARCA5/SNF2H

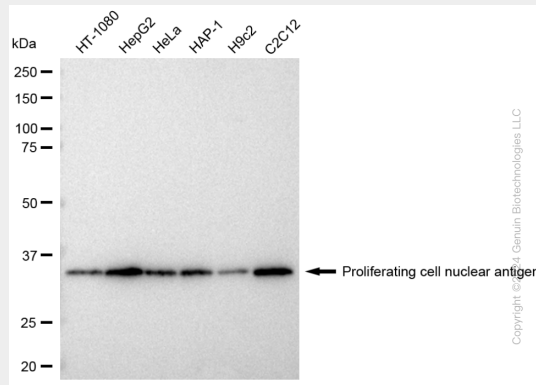
and BAZ1B/WSTF at replication foci during S phase (PubMed:15543136). Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents

KD-Validated Anti-PCNA Mouse Monoclonal Antibody - Protocols

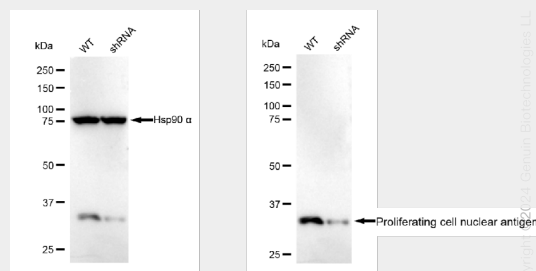
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-PCNA Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-Proliferating cell nuclear antigen antibody (Cat#AGI1783). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Proliferating cell nuclear antigen antibody (Cat#AGI1783, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-Proliferating cell nuclear antigen antibody (Cat#AGI1783). Proliferating cell nuclear antigen expression in wild type (WT) and Proliferating cell nuclear antigen shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Proliferating cell nuclear antigen antibody (Cat#AGI1783, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.