

PCNA
Rabbit Monoclonal Antibody (Mab)
Catalog # APA035

Specification

PCNA - Product Information

| | |
|-------------------|------------------------|
| Application | IHC |
| Primary Accession | P12004 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Calculated MW | 28769 Da |

PCNA - Additional Information

| | |
|-----------|------|
| Gene ID | 5111 |
| Gene Name | PCNA |

Other Names

Proliferating cell nuclear antigen, PCNA, Cyclin, PCNA

| | |
|-------------|---|
| Storage | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| Precautions | PCNA is for research use only and not for use in diagnostic or therapeutic procedures. |

PCNA - Protein Information

Name PCNA

Function

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. 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

Cellular Location

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](#)). 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.

PCNA - 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](#)

PCNA - Images