

**Anti-PCNA Antibody (clone PC10)**  
**Mouse Anti Human Monoclonal Antibody**  
**Catalog # ALS17848****Specification**

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**Anti-PCNA Antibody (clone PC10) - Product Information**

Application	WB, IHC-P, IHC-F, IP, FC
Primary Accession	<a href="#">P12004</a>
Predicted	Human, Mouse, Rat, Rabbit, Hamster, Chicken, Rhesus, Sheep, Xenopus, Horse, Dog, Cat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	28769
Dilution	WB~~1:1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A FC~~1:10~50

**Anti-PCNA Antibody (clone PC10) - Additional Information****Gene ID** 5111

Alias Symbol	PCNA
<b>Other Names</b>	
PCNA, Cyclin	

**Target/Specificity**

Recognizes the proliferating cell nuclear antigen, also known as PCNA or cyclin. PCNA is a 261 amino acid ~28 kD nuclear protein vital for cellular DNA synthesis at the replication fork through its interaction with. PCNA is the auxilliary protein for ...

**Reconstitution & Storage**

Purified

**Precautions**

Anti-PCNA Antibody (clone PC10) is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-PCNA Antibody (clone PC10) - 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:<a href="http://www.uniprot.org/citations/35585232" target="\_blank">35585232</a>). 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:<a href="http://www.uniprot.org/citations/24939902" target="\_blank">24939902</a>). 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:<a href="http://www.uniprot.org/citations/24695737" target="\_blank">24695737</a>).

#### **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

#### **Anti-PCNA Antibody (clone PC10) - 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](#)

#### **Anti-PCNA Antibody (clone PC10) - Images**