

# Goat anti-PCNA (aa111-122), Biotinylated Antibody

Peptide-affinity purified goat antibody  
Catalog # AF4477a

## Product Information

---

<b>Application</b>	WB, Pep-ELISA
<b>Primary Accession</b>	<a href="#">P12004</a>
<b>Other Accession</b>	<a href="#">NP_002583.1</a>
<b>Reactivity</b>	Human, Mouse, Rat, Pig, Dog, Bovine
<b>Host</b>	Goat
<b>Clonality</b>	Polyclonal
<b>Clone Names</b>	PCNA
<b>Calculated MW</b>	28769

## Additional Information

---

<b>Gene ID</b>	5111
<b>Other Names</b>	PCNA; proliferating cell nuclear antigen; MGC8367; DNA polymerase delta auxiliary protein; OTTHUMP00000030189; OTTHUMP00000030190; cyclin
<b>Dilution</b>	WB~~1:1000 Pep-ELISA~~N/A
<b>Format</b>	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
<b>Immunogen</b>	Reported variants represent identical protein: NP_872590.1, NP_002583.1
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	Goat anti-PCNA (aa111-122), Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

---

<b>Name</b>	PCNA
<b>Function</b>	Confers DNA tethering and processivity to DNA polymerases and other proteins (PubMed: <a href="#">24695737</a> , PubMed: <a href="#">24939902</a> , PubMed: <a href="#">35585232</a> ). Auxiliary protein of DNA polymerase delta and epsilon, is involved in the control of DNA replication by increasing the polymerases' processivity during elongation of the leading strand (PubMed: <a href="#">35585232</a> ). Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-aprimidinic (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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.