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

Peptide-affinity purified goat antibody
Catalog # AF4477a

Product Information

Application	WB, Pep-ELISA
Primary Accession	P12004
Other Accession	NP_002583.1
Reactivity	Human, Mouse, Rat, Pig, Dog, Bovine
Host	Goat
Clonality	Polyclonal
Clone Names	PCNA
Calculated MW	28769

Additional Information

Gene ID	5111
Other Names	PCNA; proliferating cell nuclear antigen; MGC8367; DNA polymerase delta auxiliary protein; OTTHUMP00000030189; OTTHUMP00000030190; cyclin
Dilution	WB~~1:1000 Pep-ELISA~~N/A
Format	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.
Immunogen	Reported variants represent identical protein: NP_872590.1, NP_002583.1
Storage	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.
Precautions	Goat anti-PCNA (aa111-122), Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PCNA
Function	Confers DNA tethering and processivity to DNA polymerases and other proteins (PubMed:24695737, PubMed:24939902, PubMed:35585232). 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: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

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