

PCNA Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2835c**Specification****PCNA Antibody (Center) Blocking Peptide -
Product Information**Primary Accession [P12004](#)**PCNA Antibody (Center) Blocking Peptide -
Additional Information****Gene ID** 5111**Other Names**Proliferating cell nuclear antigen, PCNA,
Cyclin, PCNA**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP2835c](/products/AP2835c) was selected from the Center region of human PCNA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PCNA Antibody (Center) Blocking Peptide -
Protein Information****Name** PCNA**Function****PCNA Antibody (Center) Blocking Peptide -
Background**

PCNA is found in the nucleus and is a cofactor of DNA polymerase delta. This protein acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway.

**PCNA Antibody (Center) Blocking Peptide -
References**

Wang,Y., J. Cell. Biochem. 106 (3), 409-413 (2009)
Maga,G., Proc. Natl. Acad. Sci. U.S.A. 105 (52), 20689-20694 (2008)
Acharya,N., Proc. Natl. Acad. Sci. U.S.A. 105 (46), 17724-17729 (2008)

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 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. Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents

PCNA Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)