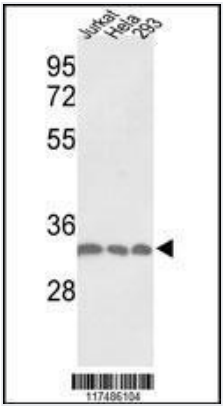
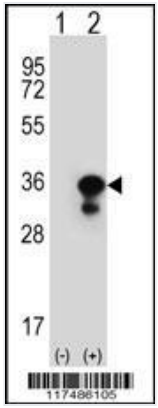
PCNA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

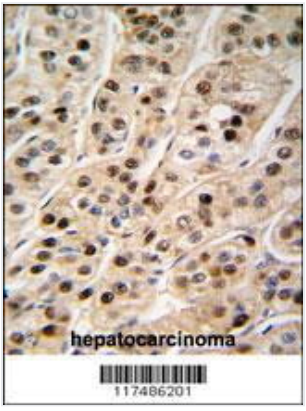
Product Name	PCNA, Polyclonal Antibody
Full Product Name	PCNA, CT (Proliferating Cell Nuclear Antigen, Cyclin) (FITC)
Product Gene Name	anti-PCNA antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Ammonium Sulfate Precipitation.
Specificity	Recognizes human PCNA.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer.
Molecular Weight	28,769 Da
OMIM	176740
3D Structure	ModBase 3D Structure for P12004
Immunogen	PCNA.
Conjugate	FITC
Note	Preservative Free
Product Categories/Family for anti-PCNA antibody	Antibodies; Enzymes
Applications Tested/Suitable for anti-PCNA antibody	Immunohistochemistry (IHC), ELISA (EIA), Western Blot (WB)
Application Notes for anti-PCNA antibody	IHC: 1:10-1:50 ELISA: 1:1,000 WB: 1:50-1:100 Applications are based on unconjugated antibody.
Related Product Information for anti-PCNA antibody	MBS6492339 is an antibody targeting PCNA. Also known as PCNA, CT (Proliferating Cell Nuclear Antigen, Cyclin) (FITC). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-PCNA antibody	1. Wang, Y., J. Cell. Biochem. 106(3), 409-413 (2009). 2. Maga, G., Proc. Natl. Acad. Sci. USA 105(52), 20689-20694 (2008). 3. Acharya, N., Proc. Natl. Acad. Sci. USA 105(46), 17724-17729 (2008).
Other Notes	Small volumes of anti-PCNA antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



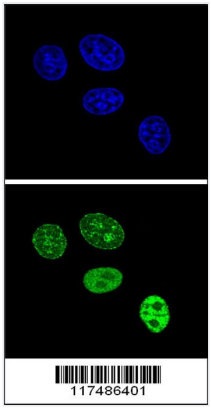
Western Blot (WB) of anti-PCNA antibody
Western blot analysis of PCNA Antibody (C-term) in Jurkat, Hela, 293 cell line lysates (35ug/lane). PCNA (arrow) was detected using the purified Pab.



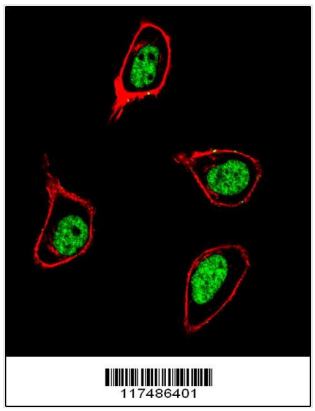
Western Blot (WB) of anti-PCNA antibody
Western blot analysis of PCNA (arrow) using rabbit polyclonal PCNA Antibody (C-term). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PCNA gene.



Immunohistochemistry (IHC) of anti-PCNA antibody
Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PCNA antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Immunofluorescence (IF) of anti-PCNA antibody
Confocal immunofluorescent analysis of PCNA Antibody (C-term) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



Immunofluorescence (IF) of anti-PCNA antibody
Confocal immunofluorescent analysis of PCNA Antibody (C-term) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PCNA. It may not necessarily be applicable to this product.

NCBI GI #	4505641
NCBI GeneID	5111

NCBI Accession #	NP_002583
UniProt Primary Accession #	P12004
UniProt Secondary Accession #	B2R897; D3DW02
UniProt Related Accession #	P12004
GenBank Nucleotide #	NM_002592.2
NCBI Official Full Name	proliferating cell nuclear antigen
NCBI Official Synonym Full Names	proliferating cell nuclear antigen
NCBI Official Symbol	PCNA
NCBI Official Synonym Symbols	ATLD2
UniProt Protein Name	Proliferating cell nuclear antigen
UniProt Synonym Protein Names	Cyclin
Protein Family	Probable DNA polymerase sliding clamp
UniProt Gene Name	PCNA
UniProt Synonym Gene Names	PCNA
UniProt Entry Name	PCNA_HUMAN
NCBI Protein Information	proliferating cell nuclear antigen
NCBI Summary for PCNA	The protein encoded by this gene is found in the nucleus and is a cofactor of DNA polymerase delta. The encoded 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. Two transcript variants encoding the same protein have been found for this gene. Pseudogenes of this gene have been described on chromosome 4 and on the X chromosome. [provided by RefSeq, Jul 2008]

UniProt Comments for PCNA	PCNA: This protein is an 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. Homotrimer. Forms a complex with activator 1 heteropentamer in the presence of ATP. Interacts with EXO1, POLH, POLK, DNMT1, ERCC5, FEN1, CDC6 and POLDIP2. Interacts with APEX2; this interaction is triggered by reactive oxygen species and increased by misincorporation of uracil in nuclear DNA. Forms a ternary complex with DNTTIP2 and core histone. Interacts with KCTD10 and PPP1R15A. Interacts with POLD1, POLD3 and POLD4. Interacts with BAZ1B; the interaction is direct. Interacts with HLTF and SHPRH. Interacts with NUDT15. Interaction is disrupted in response to UV irradiation and acetylation. Interacts with p21Cip1/p21(CIP1) and CDT1; interacts via their PIP-box which also recruits the DCX(DTL) complex. Interacts with DDX11. Interacts with EGFR; positively regulates PCNA. Interacts with C12orf48/PARI. Interacts with SMARCAD1. Belongs to the PCNA family. Protein type: DNA replication; Cell cycle regulation Chromosomal Location of Human Ortholog: 20pter-p12 Cellular Component: nucleoplasm; centrosome; PCNA complex; nuclear replication fork; DNA replication factor C complex; cytoplasm; nucleus Molecular Function: identical protein binding; protein binding; DNA polymerase processivity factor activity; MutLalpha complex binding; purine-specific mismatch base pair DNA N-glycosylase activity; dinucleotide insertion or deletion binding; receptor tyrosine kinase binding Biological Process: mismatch repair; positive regulation of deoxyribonuclease activity; heart development; DNA strand elongation during DNA replication; response to lipid; DNA repair; leading strand elongation; telomere maintenance via semi-conservative replication; G1/S-specific transcription in mitotic cell cycle; cell proliferation; bypass DNA synthesis; response to cadmium ion; epithelial cell differentiation; nucleotide-excision repair; base-excision repair; transcription-coupled nucleotide-excision repair; telomere maintenance via recombination; nucleotide-excision repair, DNA gap filling; mitotic cell cycle; telomere maintenance; regulation of DNA replication; G1/S transition of mitotic cell cycle Disease: Ataxia-telangiectasia-like Disorder 2
Research Articles on PCNA	**1.** The here presented evidence that the PCNA inner surface is highly regulated to control DNA damage resistance represents a new concept that offers new opportunities to develop tools to manipulate the DNA damage response in cancer treatment. [review]
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