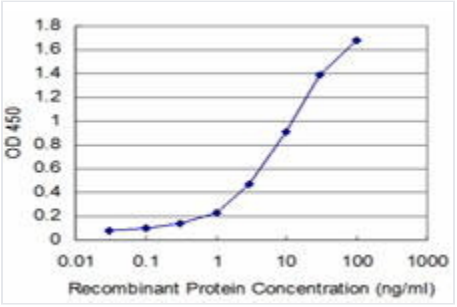
PCNA Antibody – Mouse Monoclonal

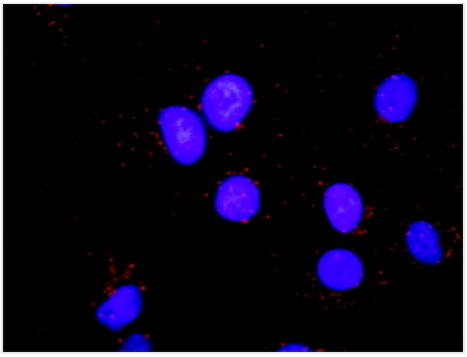
PRODUCT OVERVIEW

Product Name	PCNA, Monoclonal Antibody
Full Product Name	PCNA (Proliferating Cell Nuclear antigen, MGC8367) (HRP)
Product Gene Name	anti-PCNA antibody
Product Synonym Names	Proliferating Cell Nuclear antigen; MGC8367
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	2.0e+9
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with horseradish peroxidase (HRP).
Purity/Purification	Purified
Specificity	Recognizes 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. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	28,769 Da
OMIM	176740
3D Structure	ModBase 3D Structure for P12004
Immunogen	PCNA (NP_002583, 78aa-177aa) full length recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	ILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKLMDLDVEQLGIPEQEYSCVVKMPSGEFARICRDLSHIGDAVVISCAKDGVKFSASGELGN
Conjugate	HRP
Product Categories/Family for anti-PCNA antibody	Antibodies; Nuclear Proteins
Applications Tested/Suitable for anti-PCNA antibody	mmunofluorescence (IF), Western Blot (WB), In situ Proximity Ligation Assay (Cell)
Application Notes for anti-PCNA antibody	Applications are based on unconjugated antibody.

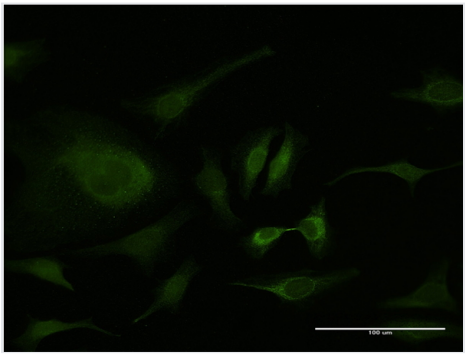
Related Product Information for anti-PCNA antibody	MBS6181002 is an antibody targeting PCNA. Also known as PCNA (Proliferating Cell Nuclear antigen, MGC8367) (HRP). Host: Mouse.
Other Notes	Small volumes of anti-PCNA antibody vial(s) may occasionally become entrapped in the seal of the product vial during 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.



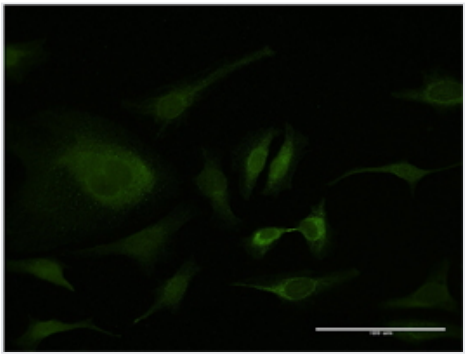
Testing Data of anti-PCNA antibody
Detection limit for recombinant GST tagged PCNA is approximately 0.3ng/ml as a capture antibody.



Testing Data of anti-PCNA antibody
Proximity Ligation Analysis of protein-protein interactions between CDK2 and PCNA. Mahlavu cells were stained with anti-CDK2 rabbit purified polyclonal 1:1200 and anti-PCNA mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Immunofluorescence (IF) of anti-PCNA antibody
Immunofluorescence of monoclonal antibody to PCNA on HeLa cell. [antibody concentration 10 ug/ml]



Immunofluorescence (IF) of anti-PCNA antibody
Immunofluorescence of monoclonal antibody to PCNA on HeLa cell. [antibody concentration 10 ug/ml]

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]
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/monoclonal-antibody/pcna/6181002