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Anti-PCNA Antibody (Monoclonal, PC 10)

Catalog # ABO10468

Specification

Anti-PCNA Antibody (Monoclonal, PC 10) - Product Information

Application	**WB, IHC-P, IHC-F, ICC**
Primary Accession	P04961
Host	**Mouse**
Isotype	**Mouse IgG2a**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Mouse IgG monoclonal antibody for PCNA, proliferating cell nuclear antigen (PCNA) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;mouse;rat. No cross reactivity with other proteins.

Reconstitution
Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Anti-PCNA Antibody (Monoclonal, PC 10) - Additional Information

Gene ID 25737

Other Names
Proliferating cell nuclear antigen, PCNA, Cyclin, Pcna

Calculated MW
28749 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.4-1 µg/ml, Human, mouse, rat, By Heat

Immunocytochemistry , 1 µg/ml, Human, mouse, rat, -
Immunohistochemistry(Frozen Section), 0.4-1 µg/ml, Human, mouse, rat, -
Western blot, 2 µg/ml, Human, mouse, rat

Subcellular Localization
Nucleus . 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. Colocalizes with CREBBP, EP300 and POLD1 to sites of DNA damage (By similarity). .

Protein Name
Proliferating cell nuclear antigen

Contents
Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.

Immunogen
Protein A fusion protein.

Purification
Ascites

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the PCNA family.

Anti-PCNA Antibody (Monoclonal, PC 10) - Protein Information

Name Pcna

Function
Auxiliary protein of DNA polymerase delta and epsilon, 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. 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 (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P12004}. Note=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. Colocalizes with CREBBP, EP300 and POLD1 to sites of DNA damage (By similarity). {ECO:0000250|UniProtKB:P12004}

Anti-PCNA Antibody (Monoclonal, PC 10) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PCNA Antibody (Monoclonal, PC 10) - Images

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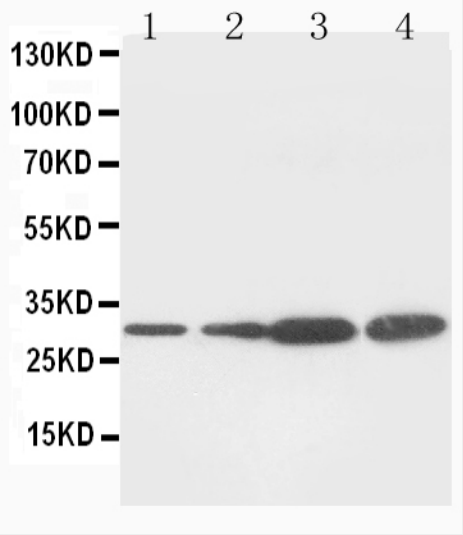
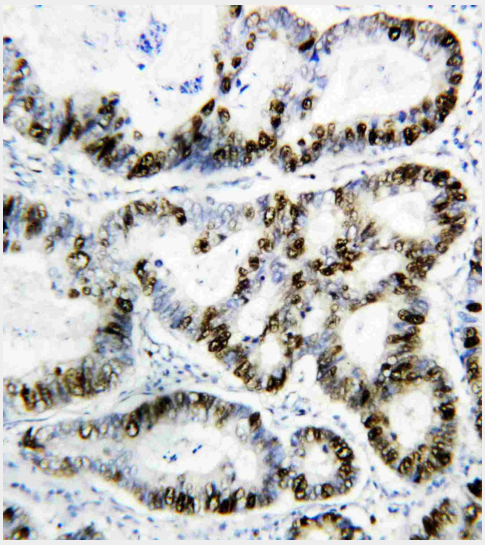
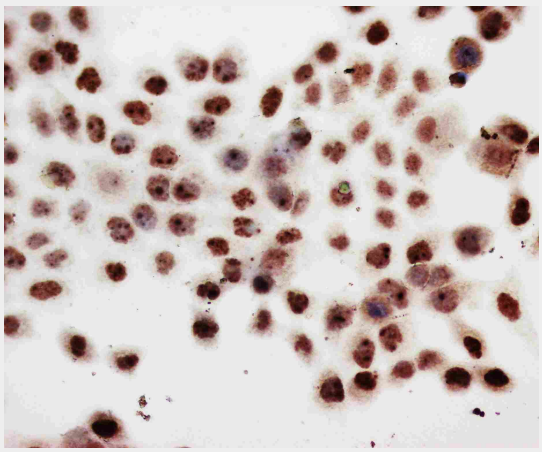


Anti-PCNA antibody (monoclonal), ABO10468, Western blottingLane 1: MCF-7 Cell LysateLane 2: HELA Cell LysateLane 3: HT1080 Cell LysateLane 4: COLO320 Cell Lysate



Anti-PCNA antibody (monoclonal), ABO10468, IHC(P)IHC(P): Human Rectal Cancer Tissue



Anti-PCNA antibody (monoclonal), ABO10468, ICCICC: HELA Cell

Anti-PCNA Antibody (Monoclonal, PC 10) - Background

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Proliferating cell nuclear antigen(PCNA) was originally identified by immunofluorescence as a nuclear protein whose appearance correlated with the proliferative state of the cell. PCNA/cyclin has been localized by in situ hybridization to the short arm of human chromosome 20 with a peak of grains over band 20p13. PCNA gene is present in single copy and has 6 exons. It spans 4,961 bp. Synthesis of the nuclear protein cyclin and DNA in quiescent mouse fibroblasts is coordinately induced by serum and purified growth factors. PCNA controls establishment of sister chromatid cohesion during S phase.