

Anti-PCNA Antibody (Monoclonal, PC 10)

Catalog # ABO10468

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.

Additional Information

Gene ID	25737
Other Names	Proliferating cell nuclear antigen, PCNA, Cyclin, PcnA
Calculated MW	28749
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.4-1 μ g/ml, Human, mouse, rat, By Heat Immunocytochemistry , 1 μ g/ml, Human, mouse, rat, - Immunohistochemistry(Frozen Section), 0.4-1 μ g/ml, Human, mouse, rat, - Western blot, 2 μ g/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). .
Source	Eukaryota
Protein Name	Proliferating cell nuclear antigen
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Clone Names	PC 10
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.

Protein Information

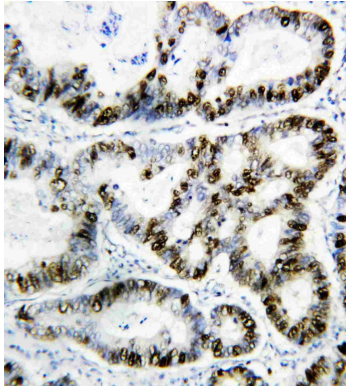
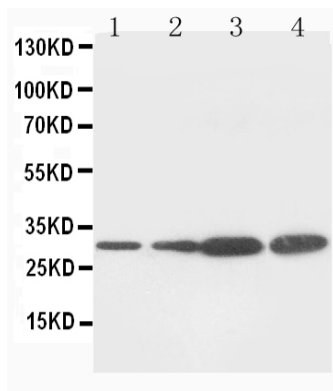
Name	Pcna
Function	Confers DNA tethering and processivity to DNA polymerases and other proteins. Auxiliary protein of DNA polymerase delta and epsilon, is involved in the control of DNA replication by increasing the polymerases' processivity during elongation of the leading strand. Induces a robust stimulatory 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.
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}

Background

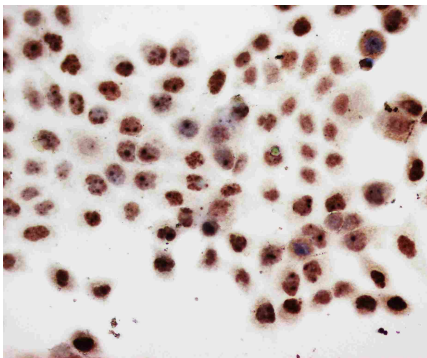
Proliferating cell nuclear antigen(PCNA) was originally identified by immunofluorescence as a nuclear protein whose appearance correlated with the proliferative state of the cell. PCNA/cyclin has been localized by in situ hybridization to the short arm of human chromosome 20 with a peak of grains over 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.

Images

Anti-PCNA antibody (monoclonal), ABO10468, Western blotting
Lane 1: MCF-7 Cell Lysate
Lane 2: HELA Cell Lysate
Lane 3: HT1080 Cell Lysate
Lane 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

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