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PCNA Antibody

Rabbit mAb
Catalog # AP90031

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P12004
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	Cyclin; DNA polymerase delta auxiliary protein; MGC8367; PCNA; Proliferating cell nuclear antigen
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	28769

Additional Information

Dilution	WB 1:3000~1:10000 IHC 1:50~1:200 ICC/IF 1:100~1:500 IP 1:50~1:100 FC 1:200~1:500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PCNA
Description	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. Belongs to the PCNA family. Homotrimer. Forms a complex with activator 1 heteropentamer in the presence of ATP.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

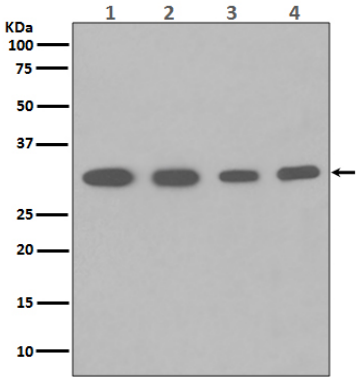
Name	PCNA
Function	Confers DNA tethering and processivity to DNA polymerases and other proteins (PubMed:24695737, PubMed:24939902, PubMed:35585232). Auxiliary protein of DNA polymerase delta and epsilon, is involved in the control of DNA replication by increasing the polymerases' processivity during elongation of the leading strand (PubMed:35585232). 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 (PubMed:15543136). Co-localizes with SMARCA5/SNF2H and BAZ1B/WSTF at replication foci during S phase (PubMed:15543136). Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents

Images



Western blot analysis of PCNA expression in (1) Hela cell lysate; (2) HepG2 whole cell lysate; (3) U937 whole cell lysate; (4) Mouse spleen lysate with PCNA Antibody.

Image not found : 202311/AP90031-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human colon, using PCNA Antibody.

Image not found : 202311/AP90031-IF.jpg

Immunofluorescent analysis of Hela cells, using PCNA Antibody.

Image not found : 202311/AP90031-wb5.jpg

Prostaglandin E1 Inhibited Diabetes-Induced Phenotypic Switching of Vascular Smooth Muscle Cells Through Activating Autophagy. -Cellular Physiology and Biochemistry

Image not found : 202311/AP90031-wb6.jpg

CircDLST promotes the tumorigenesis and metastasis of gastric cancer by sponging miR-502-5p and activating the NRAS/MEK1/ERK1/2 signaling. -Molecular Cancer