

Anti-PCNA Antibody

Catalog Number: M00125-2

About PCNA

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. 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.

Overview

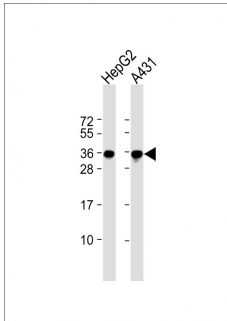
Product Name	Anti-PCNA Antibody
Reactive Species	Human
Description	Boster Bio Anti-PCNA Antibody (Catalog # M00125-2). Tested in WB, Flow Cytometry, IHC-P application(s). This antibody reacts with Human.
Application	Flow Cytometry, IHC-P, WB
Clonality	Monoclonal 1655CT506.10.26
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	P12004

Technical Details

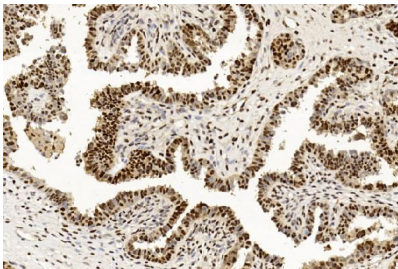
Immunogen	This PCNA antibody is generated from a mouse immunized with a recombinant protein of human PCNA.
Predicted Reactive Species	Human
Isotype	IgG1,k
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	WB: 1:2000 IHC: 1:2000 IHC-P: 1:25

FC: 1:25

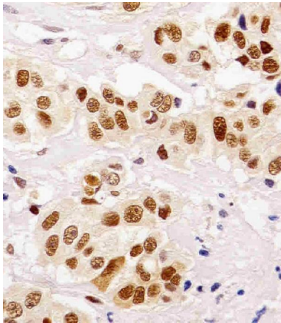
Anti-PCNA Antibody (M00125-2) Images



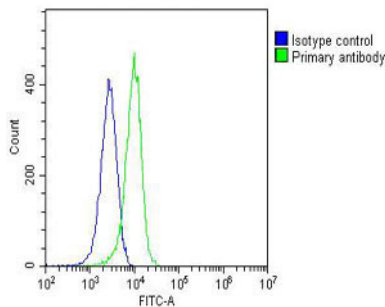
All lanes : Anti-PCNA Antibody at 1:2000 dilution
Lane 1: HepG2 whole cell lysate
Lane 2: A431 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 29 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded Human Ovarian cancer section using Pink1. M00125-2 was diluted at 1:2000 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



M00125-2 staining PCNA in human breast carcinoma tissue sections by Immunohistochemistry (IHC-P -paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing HeLa cells stained with M00125-2 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (M00125-2, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG1 (1g/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

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Anti-PCNA Antibody

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