




Product datasheet

Anti-PCNA antibody [PCNA/694] α b220208

[1 References](#) [3 Images](#)

Overview

Product name	Anti-PCNA antibody [PCNA/694]
Description	Mouse monoclonal [PCNA/694] to PCNA
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Chicken, Cow, Xenopus laevis, Zebrafish, Cynomolgus monkey, Chinese hamster 
Immunogen	Recombinant full length protein corresponding to Human PCNA aa 1 to the C-terminus. Database link: P12004  Run BLAST with  Run BLAST with
Positive control	WB: HepG2 cell lysate; IHC-P: Human tonsil tissue; Flow Cyt: HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.05% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	PCNA/694

Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab220208 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 2 µg/ml. Predicted molecular weight: 29 kDa.
IHC-P		Use a concentration of 0.25 - 0.5 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Primary incubation for 30 minutes at room temperature
Flow Cyt		Use 1-2µg for 10 ⁶ cells.

Target

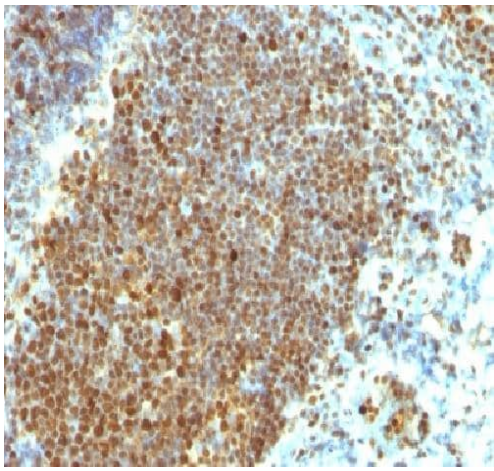
Function This protein is an auxiliary protein of DNA polymerase delta and is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand. Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (AP) endonuclease, APEX2 activities. Has to be loaded onto DNA in order to be able to stimulate APEX2.

Sequence similarities Belongs to the PCNA family.

Post-translational modifications Upon methyl methanesulfonate-induced DNA damage, mono-ubiquitinated by the UBE2B-RAD18 complex on Lys-164. This induces non-canonical polyubiquitination on Lys-164 through 'Lys-63' linkage of ubiquitin moieties by the E2 complex UBE2N-UBE2V2 and the E3 ligases, HLTF, RNF8 and SHPRH, which is required for DNA repair. 'Lys-63' polyubiquitination prevents genomic instability on DNA damage. Monoubiquitination at Lys-164 also takes place in undamaged proliferating cells, and is mediated by the DCX(DTL) complex, leading to enhance PCNA-dependent translesion DNA synthesis.
Acetylated in response to UV irradiation. Acetylation disrupts interaction with NUDT15 and promotes degradation.

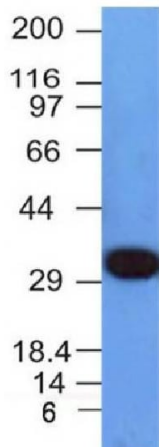
Cellular localization Nucleus. Forms nuclear foci representing sites of ongoing DNA replication and vary in morphology and number during S phase. Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody [PCNA/694] (ab220208)

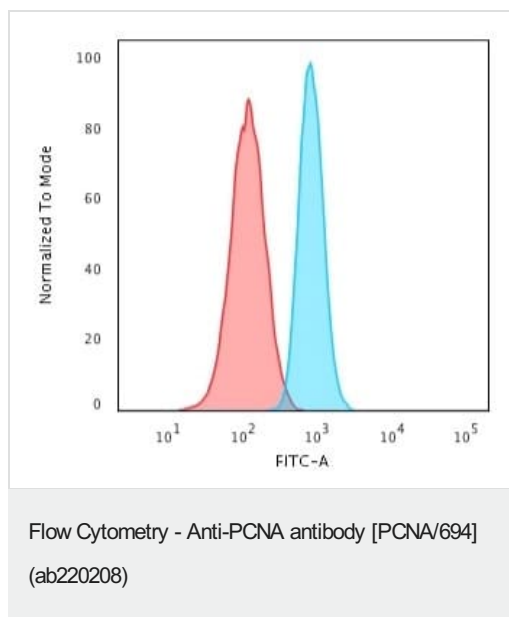
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue labeling PCNA with ab220208 at 1 µg/mL.



Western blot - Anti-PCNA antibody [PCNA/694] (ab220208)

Anti-PCNA antibody [PCNA/694] (ab220208) at 1 µg/ml + HepG2 cell lysate

Predicted band size: 29 kDa



Flow Cytometry analysis of PFA-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling PCNA with ab220208 at $2\text{ }\mu\text{g}/10^6$ cells followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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