


Product datasheet

Anti-PCNA antibody ab152112

★★★★☆ [2 Abreviews](#) [25 References](#) [16 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-PCNA antibody |
| Description | Rabbit polyclonal to PCNA |
| Host species | Rabbit |
| Tested applications | Suitable for: WB, IHC-P, ICC/IF, IP |
| Species reactivity | Reacts with: Mouse, Rat, Human Predicted to work with: Pig  |
| Immunogen | Recombinant fragment, corresponding to a region within amino acids 1-253 of PCNA (Uniprot: P12004). |
| Positive control | Jurkat, Raji, 293T, A431, HeLa, HepG2, H1299, HCT116, MCF7, NT2D1, PC3, U87 MG, NIH 3T3, JC, BCL1, PC12, A549 and SiHa whole cell lysates; HeLa cells; Human KYSE170 xenograft and Human breast carcinoma tissues. |
| 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. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| Storage buffer | pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 78% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine) |
| Purity | Immunogen affinity purified |
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab152112 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 | | 1/500 - 1/3000. Predicted molecular weight: 29 kDa. |
| IHC-P | ★★★★☆ (2) | 1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Or perform heat mediated antigen retrieval with Tris-EDTA buffer pH 8. |
| ICC/IF | | 1/100 - 1/1000. |
| IP | | 1/100 - 1/500. |

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.

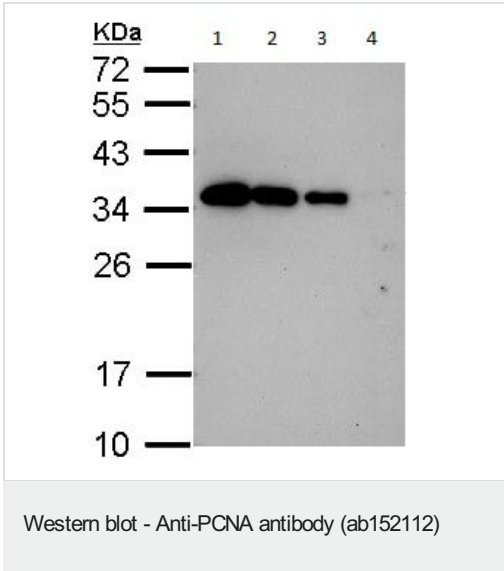
Post-translational modifications

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



All lanes : Anti-PCNA antibody (ab152112) at 1/3000 dilution

Lane 1 : HCT116 whole cell lysate at 15 µg

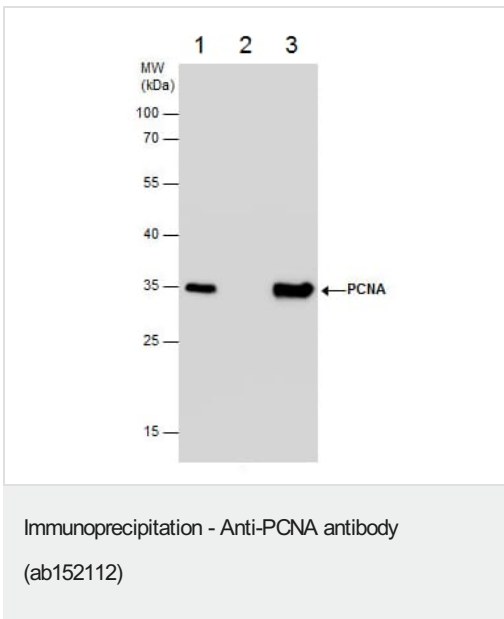
Lane 2 : HCT116 whole cell lysate at 10 µg

Lane 3 : HCT116 whole cell lysate at 5 µg

Lane 4 : HCT116 whole cell lysate at 1 µg

Predicted band size: 29 kDa

12% SDS PAGE

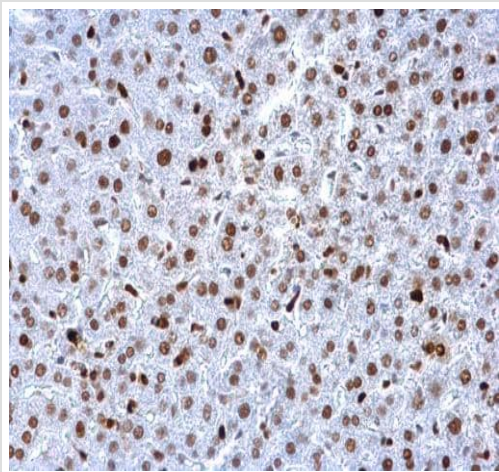


PCBP2 was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extracts with 5 µg ab152112. Western blot was performed from the immunoprecipitate using ab152112.

Lane 1: PCBP2 protein only.

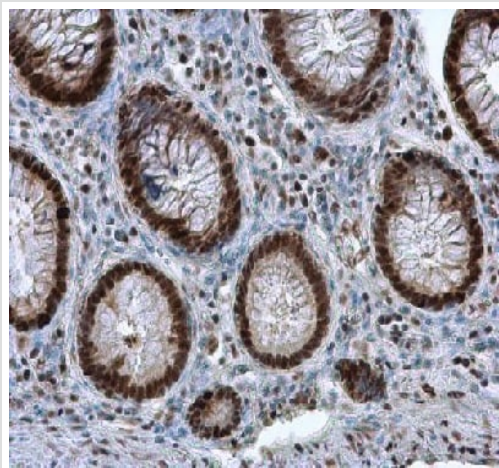
Lane 2: IgG instead of ab152112 in HeLa whole cell extract.

Lane 3: ab152112 IP in HeLa whole cell extract.



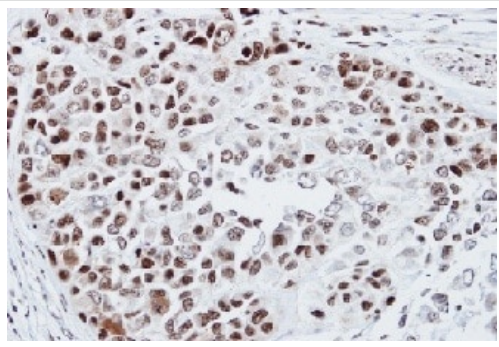
Paraffin-embedded mouse liver tissue stained for PCNA using ab152112 at 1/500 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)



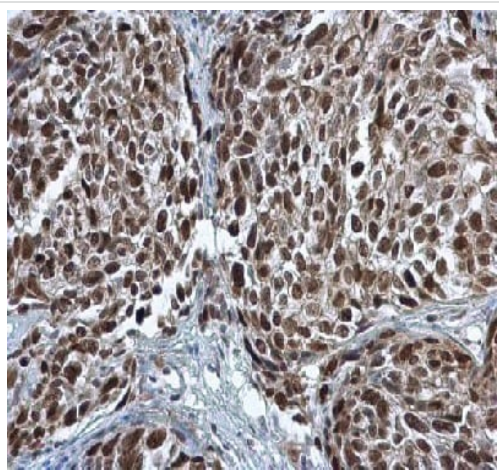
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling PCNA with ab152112 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)



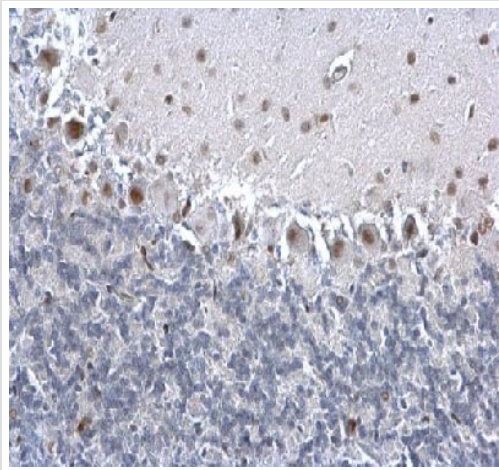
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)

Immunohistochemical analysis of paraffin-embedded Human KYSE170 xenograft tissue labeling PCNA with ab152112 at 1/500 dilution.



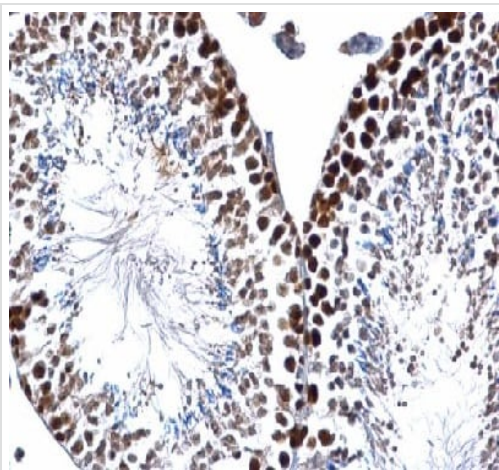
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)

Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling PCNA with ab152112 at 1/500 dilution.



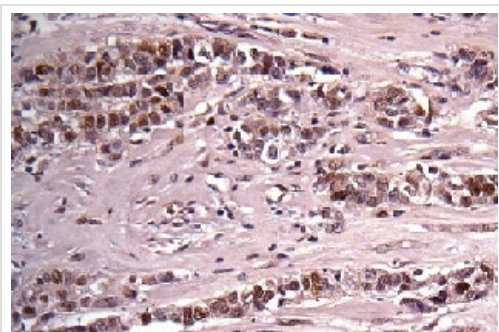
Immunohistochemical analysis of paraffin-embedded Rat hind brain tissue labeling PCNA with ab152112 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)



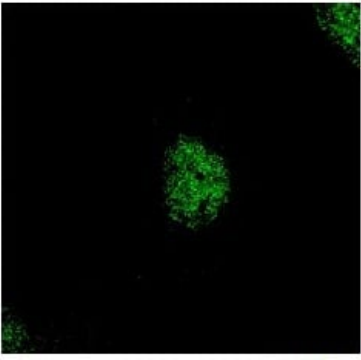
Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling PCNA with ab152112 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)



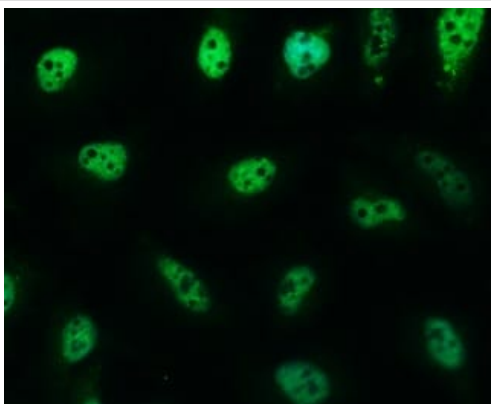
Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labeling PCNA with ab152112 at 1/100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCNA antibody (ab152112)



Immunocytochemistry/ Immunofluorescence - Anti-PCNA antibody (ab152112)

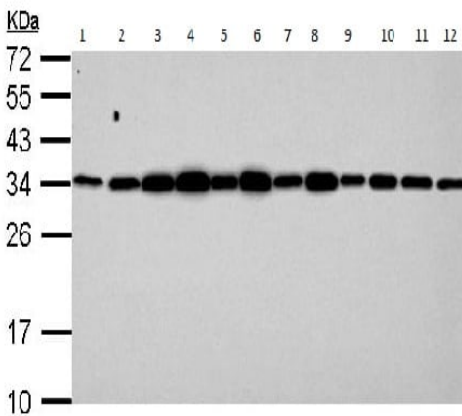
Immunofluorescent analysis of methanol-fixed HeLa cells labeling PCNA with ab152112 at 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-PCNA antibody (ab152112)

Immunofluorescent analysis of HeLa (Human epithelial cells from cervix adenocarcinoma cell line) labeling PCNA with ab152112 at 1/500 dilution.

Counterstain is Hoechst 33342 (blue).



Western blot - Anti-PCNA antibody (ab152112)

All lanes : Anti-PCNA antibody (ab152112) at 1/3000 dilution

Lane 1 : Jurkat whole cell lysate

Lane 2 : Raji whole cell lysate

Lane 3 : 293T whole cell lysate

Lane 4 : A431 whole cell lysate

Lane 5 : HeLa whole cell lysate

Lane 6 : HepG2 whole cell lysate

Lane 7 : H1299 whole cell lysate

Lane 8 : HCT116 whole cell lysate

Lane 9 : MCF7 whole cell lysate

Lane 10 : NT2D1 whole cell lysate

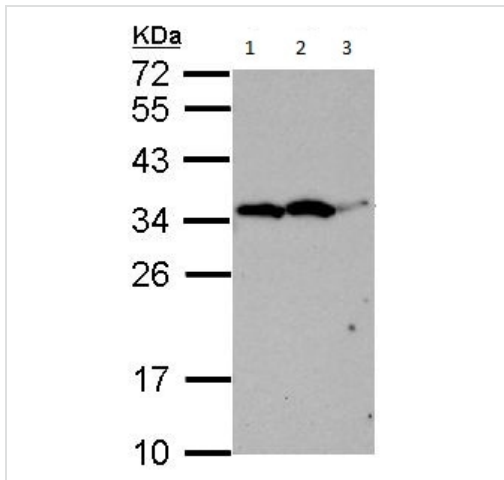
Lane 11 : PC3 whole cell lysate

Lane 12 : U87 MG whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 29 kDa

12% SDS PAGE



Western blot - Anti-PCNA antibody (ab152112)

All lanes : Anti-PCNA antibody (ab152112) at 1/1000 dilution

Lane 1 : NIH 3T3 whole cell lysate

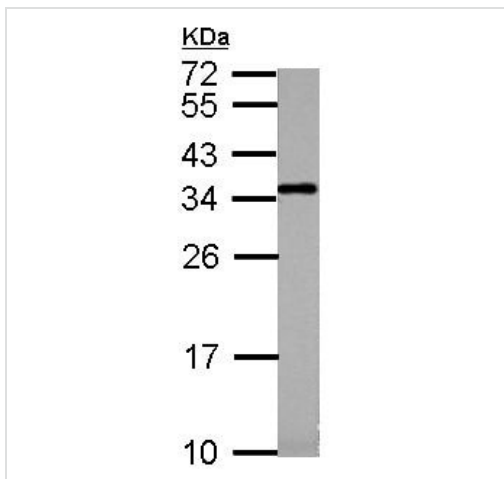
Lane 2 : JC whole cell lysate

Lane 3 : BCL1 whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 29 kDa

12% SDS PAGE

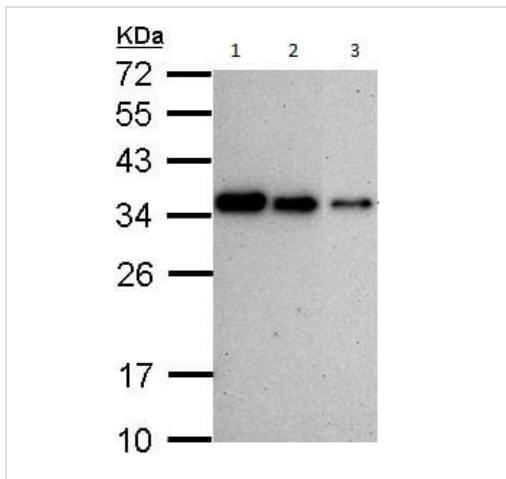


Western blot - Anti-PCNA antibody (ab152112)

Anti-PCNA antibody (ab152112) at 1/1000 dilution + PC12 whole cell lysate at 30 µg

Predicted band size: 29 kDa

12% SDS PAGE



Western blot - Anti-PCNA antibody (ab152112)

All lanes : Anti-PCNA antibody (ab152112) at 1/3000 dilution

Lane 1 : 293T whole cell lysate

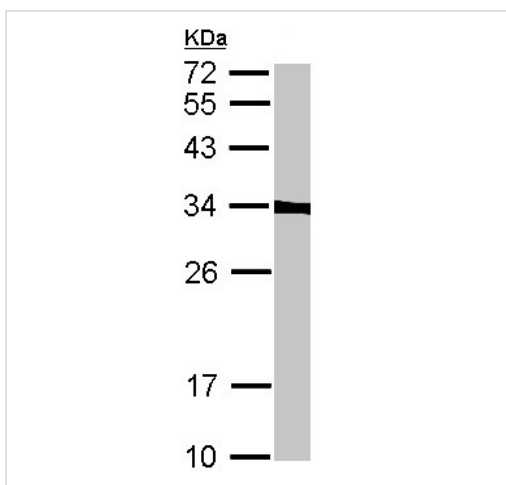
Lane 2 : NIH 3T3 whole cell lysate

Lane 3 : PC12 whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 29 kDa

12% SDS PAGE



Western blot - Anti-PCNA antibody (ab152112)

Anti-PCNA antibody (ab152112) at 1/1000 dilution + NIH 3T3 whole cell lysate at 30 µg

Predicted band size: 29 kDa

12% SDS PAGE

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