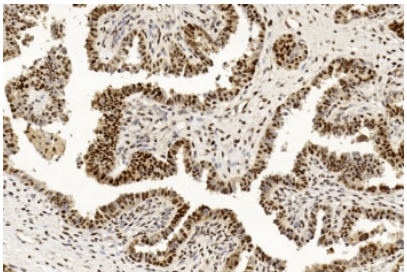
PCNA Antibody [clone 1655CT506.10.26] (F54492)

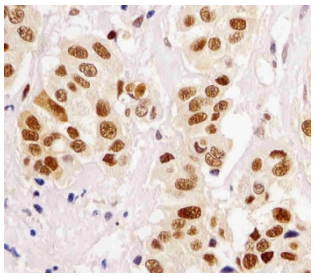
Catalog No.	Formulation	Size
F54492-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54492-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

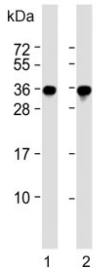
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	IgG1,kappa
Clone Name	1655CT506.10.26
Purity	Protein G affinity
UniProt	P12004
Localization	Nuclear
Applications	Western Blot : 1:500-1:2000 Flow Cytometry : 1:25 (1x10e6 cells) Immunohistochemistry (FFPE) : 1:25
Limitations	This PCNA antibody is available for research use only.



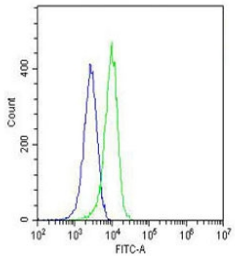
IHC testing of FFPE human ovarian cancer tissue with PCNA antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



IHC testing of FFPE human breast cancer tissue with PCNA antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



Western blot testing of human 1) HepG2 and 2) A431 cell lysate with PCNA antibody. Expected molecular weight: 29-36 kDa.



Flow cytometry testing of fixed and permeabilized human HeLa cells with PCNA antibody; Blue=isotype control, Green= PCNA antibody.

Description

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.

Application Notes

The stated application concentrations are suggested starting points. Titration of the PCNA antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Recombinant human protein was used as the immunogen for the PCNA antibody.

Storage

Aliquot the PCNA antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.