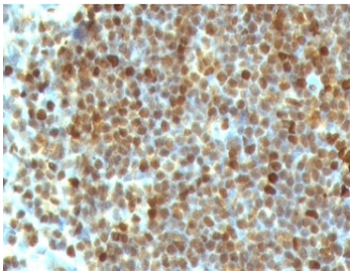
PCNA Antibody [clone PM441-1] (V7004)

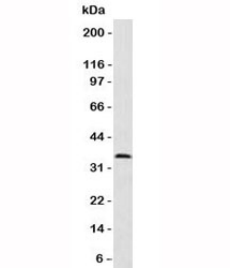
Catalog No.	Formulation	Size
V7004-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7004-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7004SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7004IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

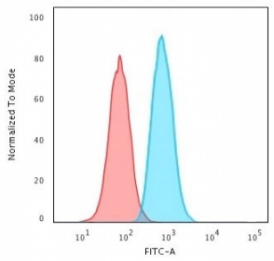
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	PM441-1
Purity	Protein G affinity chromatography
UniProt	P12004
Localization	Nuclear with some cytoplasmic
Applications	Flow Cytometry : 1-2ug/10^6 cells Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT (1) Prediluted IHC Only Format : incubate for 30 min at RT (2)
Limitations	This PCNA antibody is available for research use only.



Formalin-fixed, paraffin-embedded human tonsil stained with PCNA antibody (clone PM441-1). FFPE testing requires sections to be boiled in pH 9 10mM Tris with 1mM EDTA for 10-20 minutes, followed by cooling at RT for 20 minutes, prior to staining.



Western blot analysis of HeLa cell lysate using PCNA antibody (clone PM441-1). Predicted molecular weight 29~36 kDa.



Flow cytometry testing of PFA-fixed human HeLa cells with PCNA antibody (clone PM441-1); Red=isotype control, Blue= PCNA antibody.

Description

Proliferating cell nuclear antigen 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. 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 damage tolerance pathways. Acts as a loading platform to recruit DDR proteins that allow completion of DNA replication after 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. [UniProt]

Application Notes

Titering of the PCNA antibody may be required for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant proliferating cell nuclear antigen was used as the immunogen for the PCNA antibody.

Storage

Store the PCNA antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).