



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Rabbit anti- PCNA antibody

Catalog No.
130-10040

Isotype:
Rabbit Ig G

Speceis:
Human

Accession No:
P12004

Description

Proliferating cell nuclear antigen acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway. Two transcript variants encoding the same protein have been found for this gene. Pseudogenes of this gene have been described on chromosome 4 and on the X chromosome.

Expression of PCNA or cyclin or polymerase delta auxiliary protein is elevated in the nucleus during late G1 phase immediately before the onset of DNA synthesis, becoming maximal during S-phase and declining during G2 and M phases. PCNA/cyclin may act as an auxiliary protein of DNA polymerase-delta to play a fundamental role in the initiation of cell proliferation.

Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:2000 (at least detecting 500 ng/ml)
Western Blotting			*	
Enzyme Immunoassay(EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation			*	
Flow Cytometry			*	
Neutralization			*	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Preparation

Immunogen was recombinant protein derived from human PCNA. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum by ammonium sulphate precipitation, and followed by Protein A/G affinity chromatography.

Binding Activity

The antibody can specifically bind to its immunogen, and did not show any cross reactivity with unrelated antigens in ELISA. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat PCNA was not tested yet.

Reconstitution

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, like Sodium Azide. ***It final concentration is indicated in shipping vial.***

The antibody is stable for at least years from the data of receipt when stored at -20°C to -70°C . Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at -20°C to -70°C in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at 4°C . **Please avoid freeze-thaw cycles.**

Storage

Keep it at 4°C if intended for use within a month. Store at -20°C if over months. **Minimize freezing and thawing when use.**

Related products

- 1 Recombinant Human Proliferating Cell Antigen (cat# 228-11205-3)
- 2 Rabbit Anti-PCNA (cat# DS-PB-02855)

Reference

Matunis MJ.(2002) On the road to repair: PCNA encounters SUMO and ubiquitin modifications. Mol Cell. 10(3):441-2.

Uberti D, et al..(2003) Involvement of DNA damage and repair systems in neurodegenerative process. Toxicol Lett. 4;139(2-3):99-105.

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