

PCNA Monoclonal Antibody(12D10), Biotin Conjugated

Catalog No: YM2135

Reactivity: Human;Rat;Mouse

Applications: WB;IF;IHC

Target: PCNA

Fields: >>DNA replication;>>Base excision repair;>>Nucleotide excision

repair;>>Mismatch repair;>>Cell cycle;>>Tight junction;>>Hepatitis B

Gene Name: PCNA

Protein Name: Proliferating cell nuclear antigen

P12004

Human Gene Id: 5111

Human Swiss Prot

No:

0:

Specificity: PCNA Monoclonal Antibody(12D10) Biotin conjugated specially designed for

your WB or IHC analysis.

Formulation : Liquid in PBS, pH 7.4, containing 0.02% sodium azide as preservative and 50%

Glycerol.

Source: Monoclonal, Mouse IgG1

Dilution: Optimal working dilutions should be determined experimentally by the

investigator. Suggested starting dilutions are as follows: WB 1:5000, IHC 1:200.

Purification: The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Concentration: 1mg/ml

Storage Stability: Stable for one year at -15°C to -25°C from date of shipment. For maximum

recovery of product, centrifuge the original vial after thawing and prior to removing

the cap. Aliquot to avoid repeated freezi



Observed Band: 30-33kd

Cell Pathway: DNA replication;Base excision repair;Nucleotide excision repair;Mismatch

repair;Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;

Background: The protein encoded by this gene is found in the nucleus and is a cofactor of

DNA polymerase delta. The encoded protein 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. [provided by RefSeq, Jul

20081.

Function: disease:Antibodies are present in sera from patients with systemic lupus

erythematosus.,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.,online information:PCNA entry,PTM:Upon methyl methanesulfonate-induced DNA damage, mono-ubiquitinated by the UBE2B-RAD18 complex on Lys-164. This induces non-canonical poly-ubiquitination on Lys-164 through 'Lys-63' linkage of ubiquitin moieties by the E2 complex UBE2N-UBE2V2 and the E3 ligases RNF8 and SHPRH, which are required for DNA repair.,similarity:Belongs to the PCNA family.,subunit:Homotrimer. Interacts with KCTD10. Interacts with PPP1R15A (By similarity). Forms a complex with activator 1 heteropentamer in the presence of

ATP. Interacts with POLH, POLK, DNMT1, ERCC5/XPG, FEN1, C

Subcellular Location:

Nucleus . Colocalizes with CREBBP, EP300 and POLD1 to sites of DNA damage (PubMed:24939902). Forms nuclear foci representing sites of ongoing DNA replication and vary in morphology and number during S phase

(PubMed:15543136). Co-localizes with SMARCA5/SNF2H and BAZ1B/WSTF at replication foci during S phase (PubMed:15543136). Together with APEX2, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging

agents..

Expression: Bone marrow, Fetal brain cortex, Lung, Placenta,

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