

## p21 Polyclonal Antibody

Catalog No: YT3497

**Reactivity:** Human; Mouse; Rat

**Applications:** IF;WB;IHC;ELISA

Target: p21

**Fields:** >> Endocrine resistance; >> Platinum drug resistance; >> ErbB signaling

pathway;>>HIF-1 signaling pathway;>>FoxO signaling pathway;>>Cell cycle;>>p53 signaling pathway;>>PI3K-Akt signaling pathway;>>Cellular senescence;>>JAK-STAT signaling pathway;>>Oxytocin signaling

pathway;>>Parathyroid hormone synthesis, secretion and action;>>Cushing

syndrome;>>Hepatitis C;>>Hepatitis B;>>Human cytomegalovirus

infection;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Epstein-Barr virus infection;>>Pathways in cancer;>>Transcriptional misregulation in cancer;>>Viral carcinogenesis;>>Proteoglycans in cancer;>>MicroRNAs in

cancer;>>Colorectal cancer;>>Renal cell carcinoma;>>Pancreatic cancer;>>Endometrial cancer;>>Glioma;>>Prostate cancer;>>Thyroid cancer;>>Basal cell carcinoma;>>Melanoma;>>Bladder cancer;>>Chronic

myeloid leukemia;>>Small cell lung cancer;>>Non-small cell lung

cancer;>>Breast cancer;>>Hepatocellular carcinoma;

Gene Name: CDKN1A

Protein Name: Cyclin-dependent kinase inhibitor 1

Human Gene Id: 1026

**Human Swiss Prot** F

No:

P38936

Mouse Gene Id: 12575

**Mouse Swiss Prot** 

No:

P39689

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

p21 Cip1. AA range:111-160

**Specificity:** p21 Polyclonal Antibody detects endogenous levels of p21 protein.

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**Formulation:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** IF 1:50-200 WB 1:500 - 1:2000. ELISA: 1:20000. Not yet tested in other

applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 21kD

**Cell Pathway:** Stem cell pathway; ErbB/HER; Pl3K/Akt; AMPK;

Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA; Protein\_Acetylation

**Background:** This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded

protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of

cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis

following caspase activation. Mice that lac

**Function:** function: May be the important intermediate by which p53 mediates its role as an

inhibitor of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression.,induction:By

p53, mezerein (antileukemic compound) and interferon

beta.,PTM:Phosphorylation of Thr-145 by Akt or of Ser-146 by PKC impairs binding to PCNA.,similarity:Belongs to the CDI family.,tissue specificity:Expressed

in all adult human tissues, with 5-fold lower levels observed in the brain.

Subcellular Location:

Cytoplasm . Nucleus .

**Expression:** Expressed in all adult tissues, with 5-fold lower levels observed in the brain.

Tag: orthogonal

Sort: 1

**No1:** Sc-6246

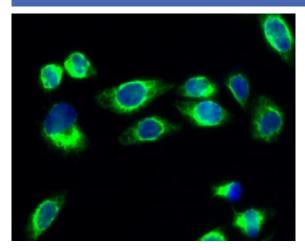
**No3:** ab109520

No4: 1

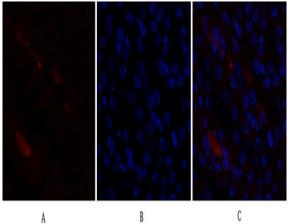
Host: Rabbit

Modifications: Unmodified

## **Products Images**

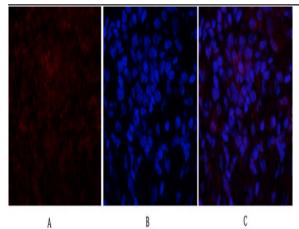


Immunofluorescence analysis of Hela cell. 1,p21 Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.

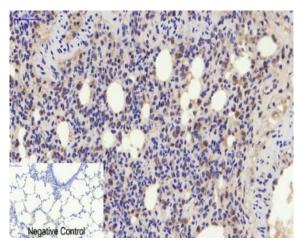


Immunofluorescence analysis of mouse-kidney tissue. 1,p21 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

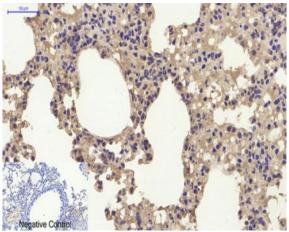
3/5



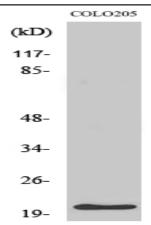
Immunofluorescence analysis of rat-lung tissue. 1,p21 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



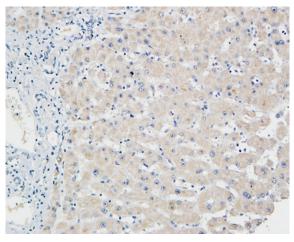
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,p21 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



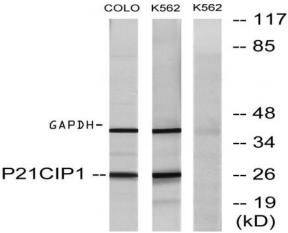
Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue. 1,p21 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of COLO205 cells using p21 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human Right liver. 1, Antibody was diluted at 1:100(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Western blot analysis of lysates from COLO and K562 cells, treated with EGF, using p21 Cip1 Antibody. The lane on the right is blocked with the synthesized peptide.