bs-0741R **[Primary Antibody]**

CDKN1A/p21 Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1026 **SWISS:** P38936

Target: CDKN1A/p21

Immunogen: KLH conjugated synthetic peptide derived from human P21: 101-164/164.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 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 (PCNA), 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 CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Two alternatively spliced variants, which encode an identical protein, have been reported. Two families of cyclin dependent kinase inhibitors (CKIs) have been identified. The p21WAF1/Cip1 family inhibits all kinases involved in the G1/S transition. The p16INK4a family inhibits Cdk4 and Cdk6 specifically.

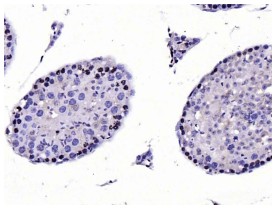
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1μg/Test)
ICC/IF (1:100)

Reactivity: Human, Mouse, Rat (predicted: Cow, Chicken, Dog)

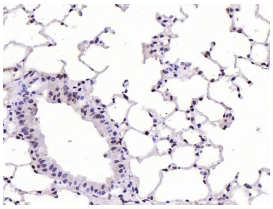
Predicted MW.: 18 kDa

Subcellular Location: Cytoplasm ,Nucleus

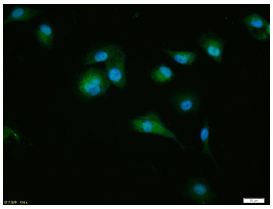
VALIDATION IMAGES



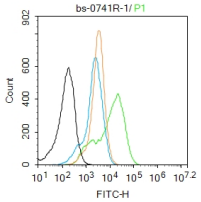
Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDKN1A) Polyclonal Antibody, Unconjugated (bs-0741R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDKN1A) Polyclonal Antibody, Unconjugated (bs-0741R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: HUVEC cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (CDKN1A/p21) Polyclonal Antibody, Unconjugated (bs-0741R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody (bs-0295G-FITC) at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control: 293T. Primary Antibody (green line): Rabbit Anti-CDKN1A/p21 antibody (bs-0741R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-FITC Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=7.666]** Feng Cui. et al. ML216 Prevents DNA Damage-Induced Senescence by Modulating DBC1–BLM Interaction. CELLS-BASEL. 2023 Jan;12(1):145 IHC ;Mouse. 36611939
- **[IF=6.7]** Yan Li. et al. Discovery of ganoderic acid A (GAA) PROTACs as MDM2 protein degraders for the treatment of breast cancer. EUR J MED CHEM. 2024 Apr;270:116367 IF,WB ;Human. 38581732
- **[IF=5.572]** Yue Zhang. et al. Dietary selenium excess affected spermatogenesis via DNA damage and telomere-related cell senescence and apoptosis in mice. FOOD CHEM TOXICOL. 2023 Jan;171:113556 WB ;Mouse. 36502996
- **[IF=4.679]** Gong Y et al. Smad3 C-terminal phosphorylation site mutation attenuates the hepatoprotective effect of salvianolic acid B against hepatocarcinogenesisFood Chem Toxicol.2021 Jan;147:111912. WB,IF ;Mouse. 33290806
- **[IF=5.223]** Keiichi Hiramoto. et al. Bacillus coagulans (species of lactic acid-forming Bacillus bacteria) ameliorates azoxymethane and dextran sodium sulfate-induced colon cancer in mice. J FUNCT FOODS. 2023 Jan;100:105406 IHC ;Mouse. 10.1016/j.jff.2023.105406