bsm-60698R **[Primary Antibody]**

p21 Recombinant Rabbit mAb

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DATASHEET

Host: Rabbit
Isotype: IgG
Clonality: Recombinant
CloneNo.: R5H7
GeneID: 1026
SWISS: P38936
Target: p21
Immunogen: A synthesized peptide derived from human CDKN1A: 50-90.
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.

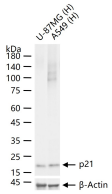
Applications: **WB** (1:500-2000)
IHC-P (1:50-200)
IHC-F (1:50-200)
IF (1:50-200)
Flow-Cyt (1:50-100)
ICC/IF (1:50-200)

Reactivity: Human

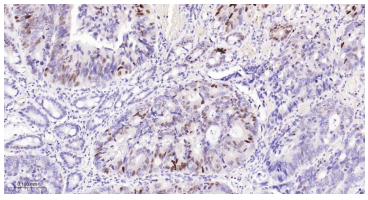
Predicted MW.: 18 kDa

Subcellular Location: Cytoplasm ,Nucleus

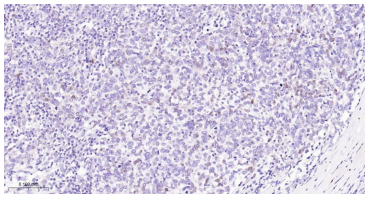
VALIDATION IMAGES



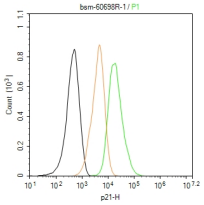
25 ug total protein per lane of various lysates (see on figure) probed with p21 monoclonal antibody, unconjugated (bsm-60698R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with p21 Monoclonal Antibody, Unconjugated(bsm-60698R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Thyroid Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with p21 Monoclonal Antibody, Unconjugated(bsm-60698R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



The U87MG (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-

cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green):Rabbit Anti-p21 antibody (bsm-60698R,1:100); Isotype Control (orange): Rabbit IgG (bs-0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=8.2]** Yun-shan Wei. et al. Regulation of the colon-targeted release rate of lactoferrin by constructing hydrophobic ethyl cellulose/pectin composite nanofibrous carrier and its effect on anti-colon cancer activity. INT J BIOL MACROMOL. 2024 Mar;261:129466 WB ;Human. 38242414
- **[IF=4.6]** Ming-Feng He. et al. Coptisine Inhibits Influenza Virus Replication by Upregulating p21. MOLECULES. 2023 Jan;28(14):5398 WB ;Dog. 37513270
- **[IF=4.4]** Yiling Zhang. et al. Inhibition of calcium imbalance protects hepatocytes from vanadium exposure induced inflammation by mediating mitochondrial-associated endoplasmic reticulum membranes. POULTRY SCIENCE. 2023 Aug;:103013 WB ;Duck. 10.1016/j.psj.2023.103013
- **[IF=1.9]** Xi-Kun Yuan. et al. Effects of Life-Long Exercise on Age-Related Inflammation, Apoptosis, Oxidative Stress, Ferroptosis Markers, and NRF2/KAEP 1/Klotho Pathway in Rat Kidneys. PHYSIOL RES. 2024 Aug 31;73(4):577-591 WB ;Rat. 39264079