[KD Validated] Anti-CDKN1A Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021414

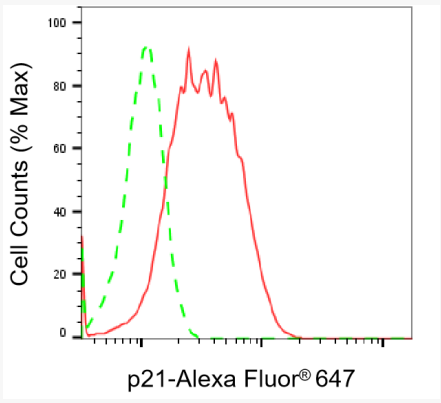
Product Information

Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	19L05S66
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human p21
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CDKN1A Rabbit mAb [19L05S66] is for research use only and not for use in diagnostic or therapeutic procedures.

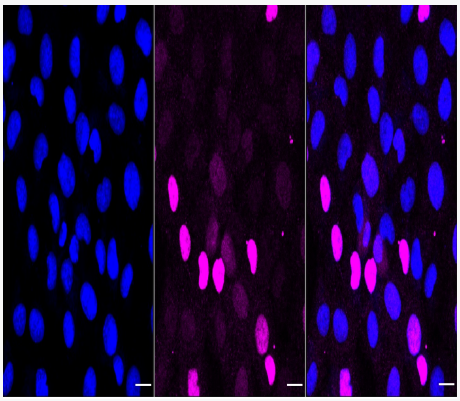
Protein Information

Synonyms	CDKN1A; Cyclin Dependent Kinase Inhibitor 1A; CAP20; CIP1; WAF1; SDI1; P21; P21CIP1; CDKN1; Cyclin-Dependent Kinase Inhibitor 1A (P21, Cip1); Cyclin-Dependent Kinase Inhibitor 1; Cdk-Interacting Protein 1; P21Cip1/Waf1; MDA-6; Melanoma Differentiation Associated Protein 6; Melanoma Differentiation-Associated Protein 6; Wild-Type P53-Activated Fragment 1; CDK-Interaction Protein 1; CDK-Interacting Protein 1; DNA Synthesis Inhibitor; MDA6; PIC1.
Calculated MW	Calculated MW: 18 kDa; Observed MW: 18 kDa
Uniprot ID	P38936
Gene ID	1026
Background	The tumor suppressor protein p21 Waf1/Cip1 acts as an inhibitor of cell cycle progression. It functions in stoichiometric relationships forming heterotrimeric complexes with cyclins and cyclin-dependent kinases. In association with CDK2 complexes, it serves to inhibit kinase activity and block progression through G1/S. However, p21 may also enhance assembly and activity in complexes of CDK4 or CDK6 and cyclin D.

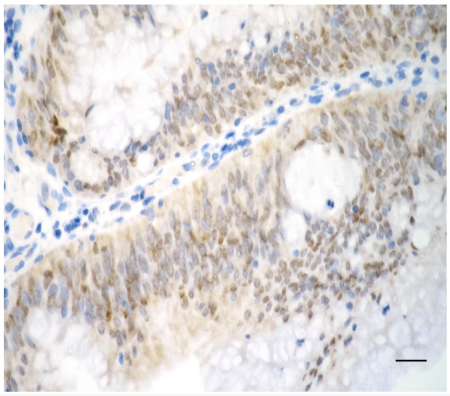
Validation Images



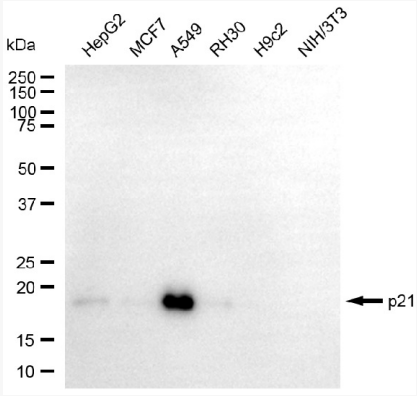
Flow cytometric analysis of p21 expression in HT-1080 cells using p21 antibody (R021414, 1:2,000). Green, isotype control; red, p21.



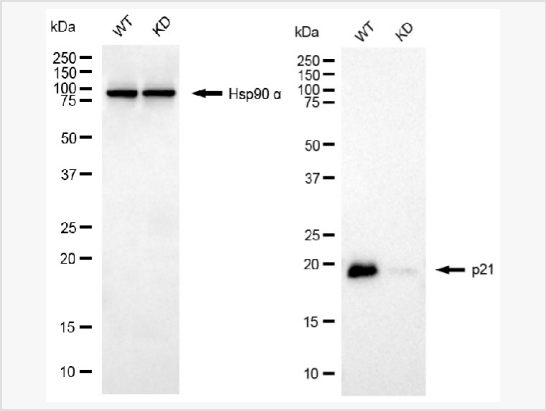
Immunocytochemical staining of HT-1080 cells with p21 antibody (R021414, 1:1,000). Nuclei were stained blue with DAPI; p21 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using p21 antibody (R021414, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Western blotting analysis using p21 antibody (R021414). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with p21 antibody (R021414, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using p21 antibody (R021414). p21 expression in wild type (WT) and CDKN1A knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with p21 antibody (R021414, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.