

P21;CDKN1A Polyclonal Antibody

Catalog number: 10355-1-AP

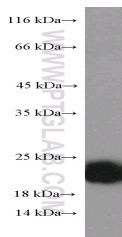
Size: 58 µg/150 µl

Source: Rabbit

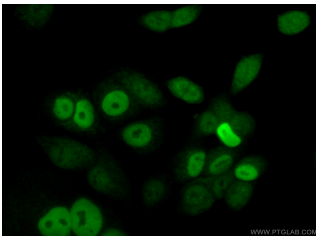
Isotype: IgG

Synonyms:

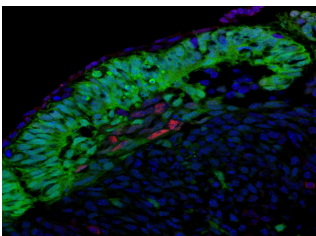
CDKN1A; CAP20, CDK interacting protein 1, CDKN1, CDKN1A, CIP1, MDA 6, MDA6, P21, p21CIP1, PIC1, SDI1, WAF1



MCF-7 cells were subjected to SDS PAGE followed by western blot with 10355-1-AP (P21;CDKN1A Antibody) at dilution of 1:1000



Immunofluorescent analysis of (10% Formaldehyde) fixed MCF-7 cells using 10355-1-AP (P21;CDKN1A Antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



IF result of anti-p21 (CDKN1A, 10355-1-AP) in the myotome of a somite at E11.5 by Dr. Zalc A. and Dr. Relaix F. (Red = p21; Green=Pax3 from a GFP reporter; Bleu=DAPI)

Background

CDKN1A (p21, CIP1, WAF1) is a cyclin-dependent kinase inhibitor. CDKN1A binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at the G1 phase. The expression of CDKN1A is induced by wild-type but not mutant p53 protein, through which CDKN1A mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. CDKN1A can interact with proliferating cell nuclear antigen (PCNA), and plays a regulatory role in S phase DNA replication and DNA damage repair. CDKN1A 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.

Applications

Tested applications:	ELISA, IF, WB, IHC, FC, IP
Cited applications:	IF, WB
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Human, mouse
Calculated P21;CDKN1A MW:	21 kDa
Observed P21;CDKN1A MW:	21 kDa
Positive WB detected in	MCF-7 cells, HEK-293 cells, HeLa cells, HUVEC cells
Positive IP detected in	MCF-7 cells
Positive IHC detected in	Human kidney tissue, human breast cancer tissue, rat brain tissue
Positive IF detected in	Myotome of a somite at E11.5 tissue, MCF-7 cells
Positive FC detected in	HeLa cells
Recommended dilution:	WB: 1:500-1:5000 IP: 1:200-1:1000 IHC: 1:20-1:200 IF: 1:20-1:200 FC: N/A

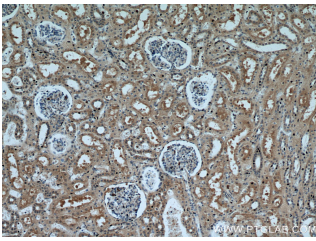
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

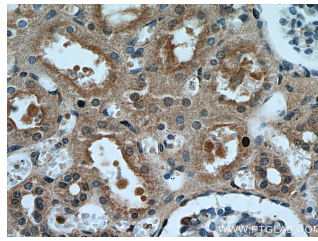
Immunogen:	Ag0368
GenBank accession number:	BC000275
Gene ID (NCBI):	1026
Full name:	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)

Product information

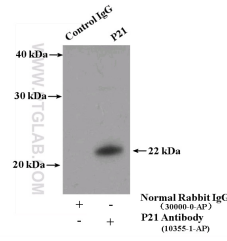
Purification method:	Antigen affinity purification
Storage:	PBS with 0.02% sodium azide and 50% glycerol pH 7.3. Store at -20°C.



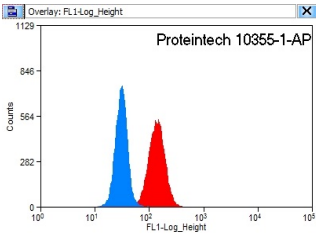
Immunohistochemical of paraffin-embedded human kidney using 10355-1-AP(P21 antibody) at dilution of 1:50 (under 10x lens)



Immunohistochemical of paraffin-embedded human kidney using 10355-1-AP(P21 antibody) at dilution of 1:50 (under 40x lens)



IP Result of anti-P21;CDKN1A (IP:10355-1-AP, 4ug; Detection:10355-1-AP 1:300) with MCF-7 cells lysate 3200ug.



1X10⁶ HeLa cells were stained with 0.2ug P21;CDKN1A antibody (10355-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.