Data Sheet (Cat.No.TMAB-01312)

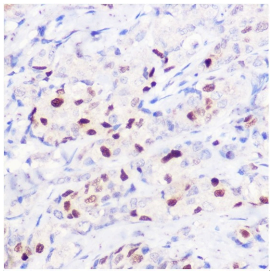
Anti-p21 Polyclonal Antibody

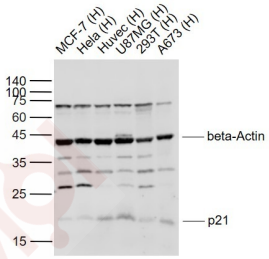
Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Mouse,Rat)
Molecular Weight:	Theoretical: 18 kDa. Actual: 21 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (human breast cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (p21) Polyclonal Antibody, Unconjugated (TMAB-01312) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructionsand DAB staining. 2. Sample: Lane 1: MCF-7 (Human) Cell Lysate at 30 µg Lane 2: Hela (Human) Cell Lysate at 30 µg Lane 3: Huvec (Human) Cell Lysate at 30 µg Lane 4: U87MG (Human) Cell Lysate at 30 µg Lane 5: 293T (Human) Cell Lysate at 30 µg Lane 6: A673 (Human) Cell Lysate at 30 µg Primary: Anti-p21 (TMAB-01312) at 1/1000 dilution Anti-beta-Actin at 1/2000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 21 kDa Observed band size: 21 kDa





Application:	ELISA,IF,IHC-Fr,IHC-P,IP,WB
Recommended	ELISA=1:5000-10000; IF=1:50-200; IHC-Fr=1:50-200; IHC-P=1:50-200; IP=0.5 µg-4 µg antibody

for 200 μg-400 μg extracts of whole cells; WB=1:500-2000

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: human p21
Antigen Species:	Human
Gene ID:	1026
Uniprot ID:	P38936
Synonyms:	DNA Synthesis Inhibitor;Cyclin-dependent kinase inhibitor 1A (p21, Cip1);PIC1;Cyclin-dependent kinase inhibitor 1;Cyclin Dependent Kinase Inhibitor 1A;Wildtype p53 Activating Fragment 1;MDA 6;MDA6;Melanoma Differentiation Associated Protein 6;CDKN1A;Melanoma differentiation-associated protein;SDI1;p21CIP1;Cyclin-dependent kinase inhibitor 1A (P21);CDKN1;CDKI;WAF1;Activating Fragment 1;p21WAF;CDN1A;P21 protein;CIP1;CDKN 1;CAP20;CDK-interacting protein 1;Cation chloride cotransporter-interacting protein 1;SLC12A9
Biology Area:	Cip / Kip,Cip/Kip,DNA / RNA binding,Co-activators/co-repressors,Zinc Finger,Co-activators/co-repressors

Research 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.

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