p21 Polyclonal Antibody

E20-53453

Catalog Number:E20-53453

Product name:p21 Polyclonal Antibody

Amount:100ul A

Applications:WB,IHC-p

Reactivity:,Human,Rat,Mouse

Gene Name:CDKN1A

Protein Name: Cyclin-dependent kinase inhibitor 1

Human Gene Id:1026

Human Swiss Prot No:P38936

Mouse Swiss Prot No:P39689

Immunogen: Synthesized peptide derived from human p21 around the non-phosphorylation site of T145.

Specificity: The antibody detects endogenous p21 protein.

Formulation:PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.

Source: Rabbit

Dilution: Western Blot: 1/500 - 1/2000.IHC-p:1:50-300. Not yet tested in other applications.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Storage Stability:-20°C/1 year

Other Names:CDKN1A; CAP20; CDKN1; CIP1; MDA6; PIC1; SDI1; WAF1; Cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; Melanoma differentiation-associated protein 6; MDA-6; p21

Observed Band(KD):21

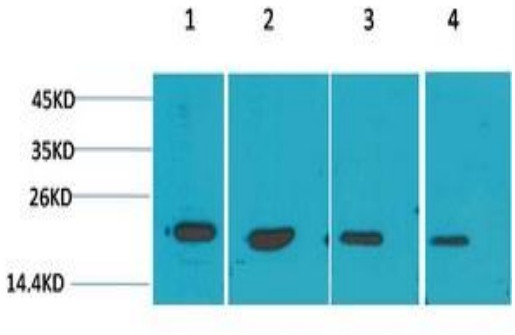
Background:cyclin dependent kinase inhibitor 1A(CDKN1A) Homo sapiens This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell 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, 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 cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation.

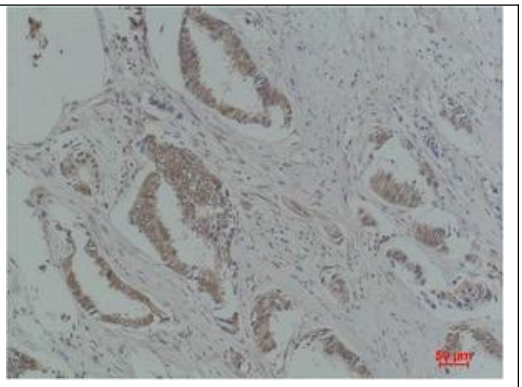
Function:function:May be the important intermediate by which p53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression.,induction:By p53, mezerein (antileukemic compound) and interferon beta.,PTM:Phosphorylation of Thr-145 by Akt or of Ser-146 by PKC impairs binding to PCNA.,similarity:Belongs to the CDI family.,tissue specificity:Expressed in all adult human tissues, with 5-fold lower levels observed in the brain.

Subcellular Location:cyclin-dependent protein kinase holoenzyme complex, nucleus, nucleoplasm, nucleolus, cytosol, protein complex,perinuclear region of cytoplasm,PCNA-p21 complex.

Expression: Aorta endothelial cell,Epithelium,Eye,Lung.



Western blot analysis of 1) 293T, 2) MCF7, 3) Mouse Liver Tissue, 4) Rat Liver Tissue using p21 Polyclonal Antibody. Secondary antibody was diluted at 1:20000.



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma using p21 Polyclonal Antibody.