

Product Name: KD-Validated Cyclin Dependent Kinase Inhibitor 1A Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01340

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 18.1kDa

Antigen Information

Gene Name	CDKN1A 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;
Alternative Names	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
Gene ID	1026.0
SwissProt ID	P38936

Immunogen

A synthesized peptide derived from human p21

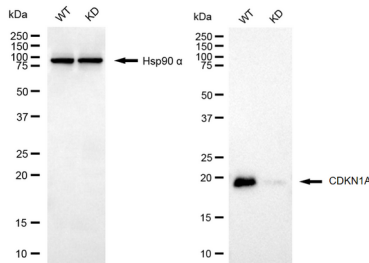
Background

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. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Sep 2015]

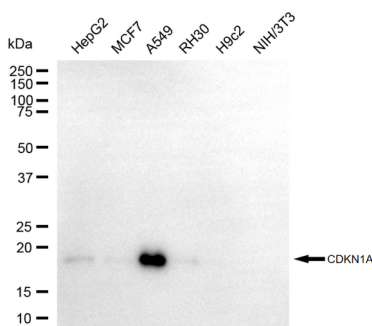
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Cancer, Kits/Lysates/Other

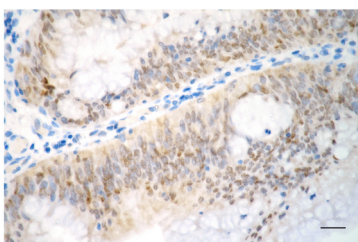
Image Data



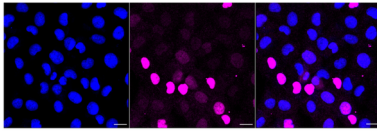
Western blotting analysis using CDKN1A antibody (KVA01340). CDKN1A expression in wild type (WT) and CDKN1A knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with CDKN1A antibody (KVA01340, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



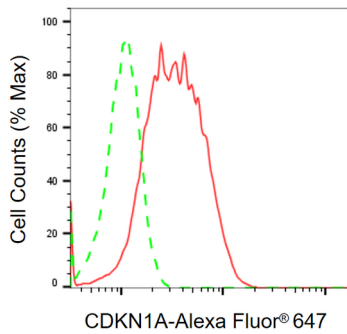
Western blotting analysis using CDKN1A antibody (KVA01340). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CDKN1A antibody (KVA01340, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using CDKN1A antibody (KVA01340, 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.



Immunocytochemical staining of HT-1080 cells with CDKN1A antibody (KVA01340, 1:1,000). Nuclei were stained blue with DAPI; CDKN1A 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.



Flow cytometric analysis of CDKN1A expression in HT-1080 cells using CDKN1A antibody (KVA01340, 1:2,000). Green, isotype control; red, CDKN1A.