Product Name: **KO-Validated Cyclin dependent kinase inhibitor 2A Recombinant Rabbit Monoclonal Antibody**
Catalog #: **KVAb00138**
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
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
Molecular Weight	Calculated MW: 16.5kDa

Antigen Information

Gene Name	CDKN2A
Alternative Names	CDKN2A; Cyclin Dependent Kinase Inhibitor 2A; P14ARF; CDK4I; MTS1; ARF; Cyclin-Dependent Kinase 4 Inhibitor A; P16-INK4A; P16INK4A; CDKN2; CMM2; INK4; P16; P19; P14; MLM; Cyclin-Dependent Kinase Inhibitor 2A (Melanoma, P16, Inhibits CDK4); Cyclin-Dependent Kinase Inhibitor 2A; Multiple Tumour Suppressor 1; Multiple Tumor Suppressor 1; CDKN2A/ARF Intron 2 LncRNA; Alternative Reading Frame; Inhibitor Of Cdk4 A; P19ARF; INK4A; MTS-1; CAI2; Cell Cycle; Negative Regulator Beta; P19 Alternate Open Reading Frame; P14 Alternate Open Reading Frame; CDK4 Inhibitor P16-INK4; Tumor Suppressor ARF; P16-INK4a; P16INK4a; P16-INK4; P16INK4; P19Arf; INK4a; TP16
Gene ID	1029.0

SwissProt ID	P42771
Immunogen	A synthesized peptide derived from human p16 INK

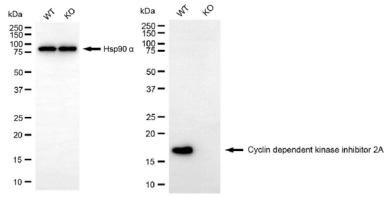
Background

This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]

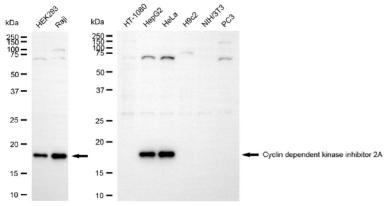
Research Area

Cell Biology,Epigenetics and Nuclear Signaling,Cancer

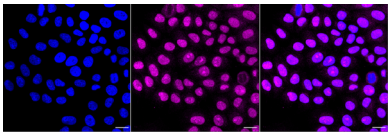
Image Data



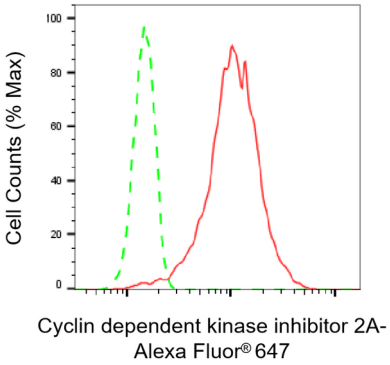
Western blotting analysis using cyclin dependent kinase inhibitor 2A antibody (KVAb00138). Cyclin dependent kinase inhibitor 2A expression in wild-type (WT) and cyclin dependent kinase inhibitor 2A (CDKN2A) knockout (KO) 293T cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with cyclin dependent kinase inhibitor 2A antibody (KVAb00138, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using cyclin dependent kinase inhibitor 2A antibody (KVAb00138). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with cyclin dependent kinase inhibitor 2A antibody (KVAb00138, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Cyclin dependent kinase inhibitor 2A antibody (KVAb00138, 1:1,000). Nuclei were stained blue with DAPI; Cyclin dependent kinase inhibitor 2A was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20 µm.



Flow cytometric analysis of Cyclin dependent kinase inhibitor 2A expression in HepG2 cells using Cyclin dependent kinase inhibitor 2A antibody (KVAb00138, 1:2,000). Green, isotype control; red, Cyclin dependent kinase inhibitor 2A.