# [KD Validated] Anti-CDKN2A Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021670

## Product Information

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|---|---|
| Application | WB, IF (Cell)/ICC |
| Reactivity | Human |
| Dilution | WB 1:1,000~1:5,000; IF 1:100~1:1,000 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 28S48S74 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from human CDKN2A/p14ARF |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | [KD Validated] Anti-CDKN2A Rabbit mAb [28S48S74] is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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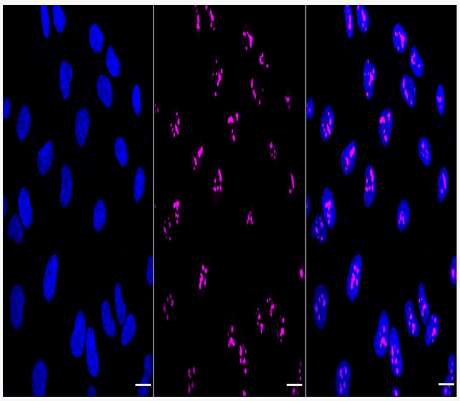
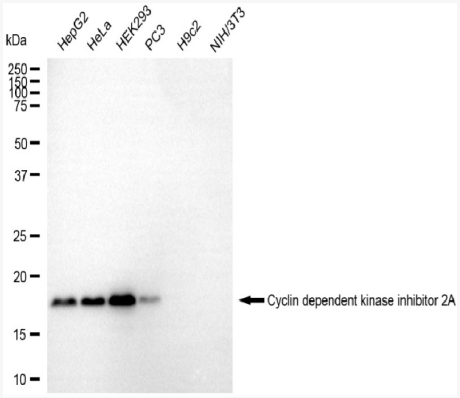
|---|---|
| Synonyms | CDKN2A; Cyclin Dependent Kinase Inhibitor 2A; P14ARF; CDK4I; MTS1; ARF; Cyclin-Dependent Kinase 4 Inhibitor A; P16-INK4A; P16INK4A; CDKN2; CMM2; INK4; P16; P19; P14; MLM; Cyclin-Dependent Kinase Inhibitor 2A (Melanoma, P16, Inhibits CDK4); Cyclin-Dependent Kinase Inhibitor 2A; 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. |
| Calculated MW | Calculated MW: 17 kDa; Observed MW: 14 kDa |
| Uniprot ID | Q8N726 |
| Gene ID | 1029 |
| 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 |

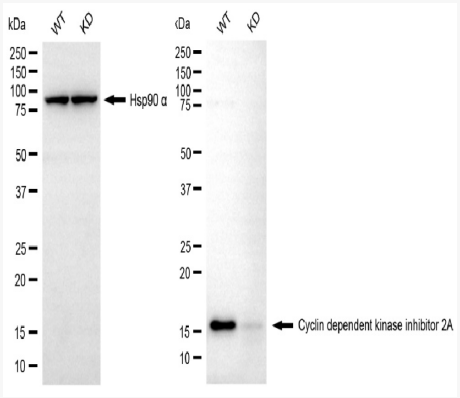
## Validation Images



Immunocytochemical staining of Hela cells with Cyclin dependent kinase inhibitor 2A antibody (R021670, 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: Low. Scale bar, 20 µm.




Western blotting analysis using cyclin dependent kinase inhibitor 2A antibody (R021670). 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 (R021670, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.




Western blotting analysis using cyclin dependent kinase inhibitor 2A antibody (R021670). Cyclin dependent kinase inhibitor 2A expression in wild-type (WT) and cyclin dependent kinase inhibitor 2A (CDKN2A) knockdown (KD) HeLa 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 (R021670, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.