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[KO Validated] CDKN2A/p16INK4a Rabbit mAb

Catalog No.: A25904 KO Validated Recombinant

Basic Information

Observed MW
16 kDa

Calculated MW
8-17 kDa

Category
Primary antibody

Applications
WB,IF/ICC,IHC-P,ELISA

Cross-Reactivity
Human

CloneNo number
ARC3291

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.

Recommended Dilutions

WB	1:15000 - 1:60000
IF/ICC	1:200 - 1:1000
IHC-P	1:500 - 1:2000
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
1029

Swiss Prot
P42771/Q8N726

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Product Information

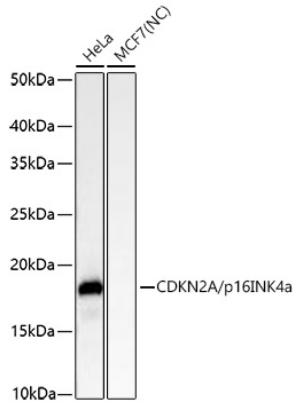
Source
Rabbit

Isotype
IgG

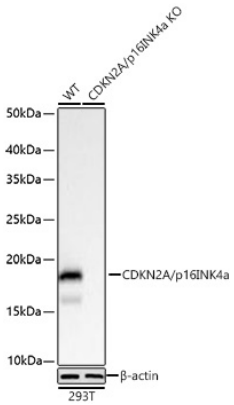
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

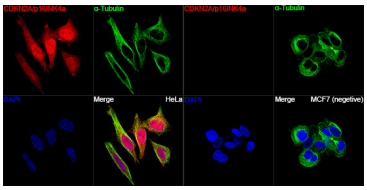
Validation Data



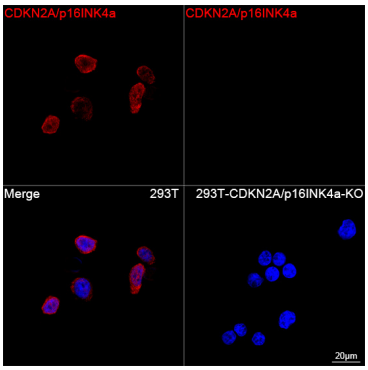
Western blot analysis of various lysates using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904) at 1:15000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Negative control (NC): MCF7.
Exposure time: 10 s.



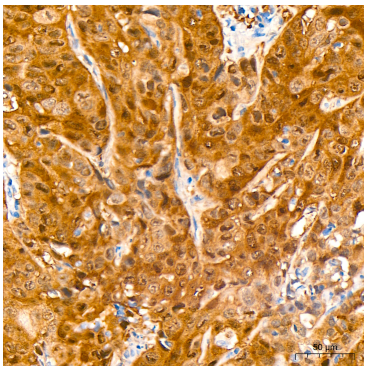
Western blot analysis of lysates from wild type (WT) and CDKN2A/p16INK4a knockout (KO) 293T cells using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904) at 1:15000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 10 s.



Confocal imaging of HeLa cells and MCF7(negtive sample) cells using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904, dilution 1:700) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

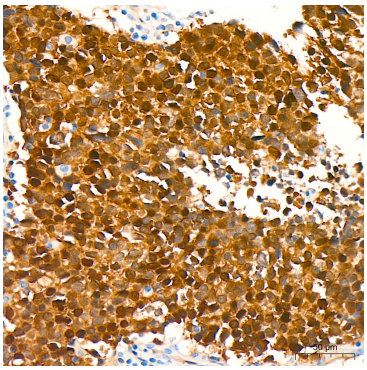


Confocal imaging of 293T cells and CDKN2A/p16INK4a knockout(KO) 293T cells using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904, dilution 1:700) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.

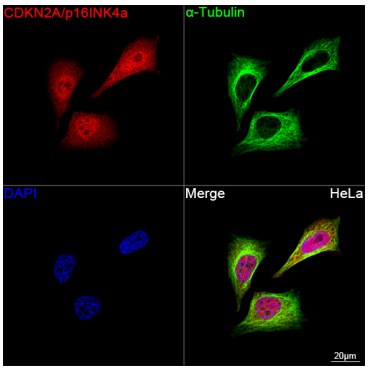


Immunohistochemistry analysis of paraffin-embedded Human cervix cancer tissue using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

Validation Data



Immunohistochemistry analysis of paraffin-embedded Human lung squamous carcinoma tissue using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Confocal imaging of HeLa cells using [KO Validated] CDKN2A/p16INK4a Rabbit mAb (A25904, dilution 1:50) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.