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p16INK4a Antibody (C-term E119)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11690B

Specification

p16INK4a Antibody (C-term E119) - Product Information

Application	**IF, WB, IHC-P-Leica, FC,E**
Primary Accession	P42771
Other Accession	NP_478104.2, NP_000068.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**104-131**

p16INK4a Antibody (C-term E119) - Additional Information

Gene ID 1029

Other Names
Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3, Cyclin-dependent kinase 4 inhibitor A, CDK4I, Multiple tumor suppressor 1, MTS-1, p16-INK4a, p16-INK4, p16INK4A, CDKN2A, CDKN2, MTS1

Target/Specificity
This p16INK4a antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 104-131 amino acids from the C-terminal region of human p16INK4a.

Dilution
IF~~1:10~50
WB~~1:2000
IHC-P-Leica~~1:500
FC~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
p16INK4a Antibody (C-term E119) is for research use only and not for use in diagnostic or therapeutic procedures.

p16INK4a Antibody (C-term E119) - Protein Information

Name CDKN2A (HGNC:1787)

Synonyms CDKN2, MTS1

Function Acts as a negative regulator of the proliferation of normal cells by interacting strongly with CDK4 and CDK6. This inhibits their ability to interact with cyclins D and to phosphorylate the retinoblastoma protein.

Cellular Location
Cytoplasm. Nucleus

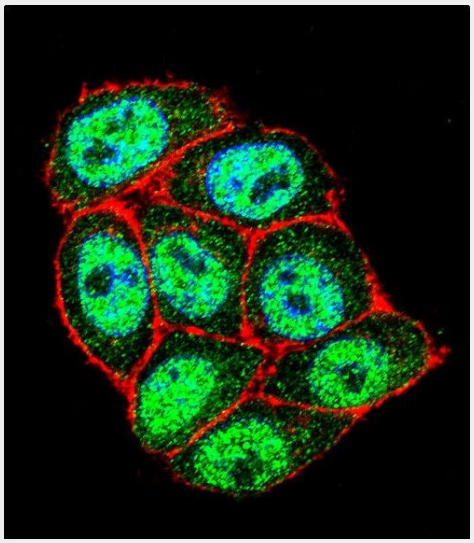
Tissue Location
Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific

p16INK4a Antibody (C-term E119) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

p16INK4a Antibody (C-term E119) - Images



Confocal immunofluorescent analysis of p16INK4a Antibody (C-term E119)(Cat#AP11690b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).

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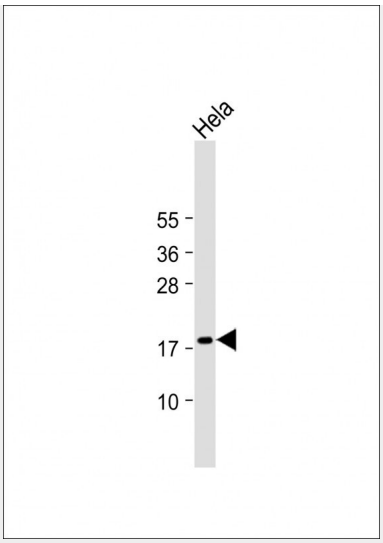
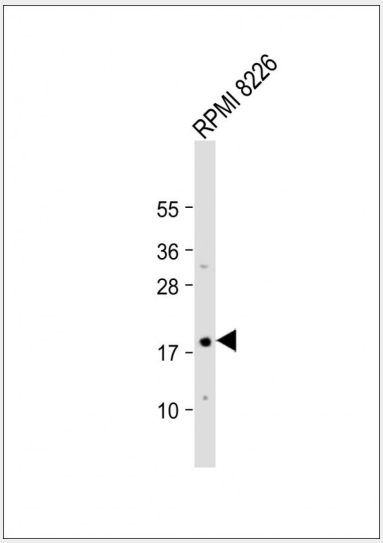


Anti-p16INK4a Antibody (C-term E119) at 1:2000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-CDKN2A Antibody (Center) at 1:2000 dilution + RPMI 8226 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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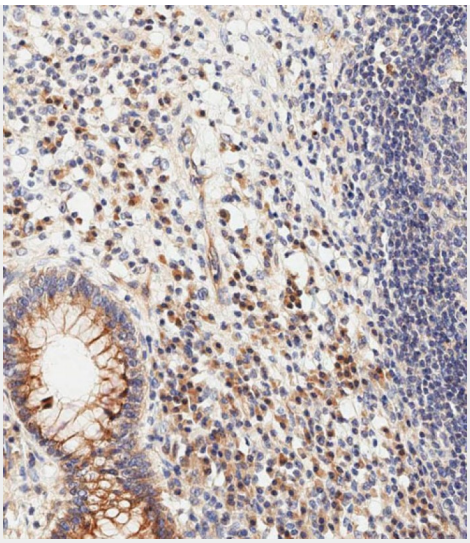
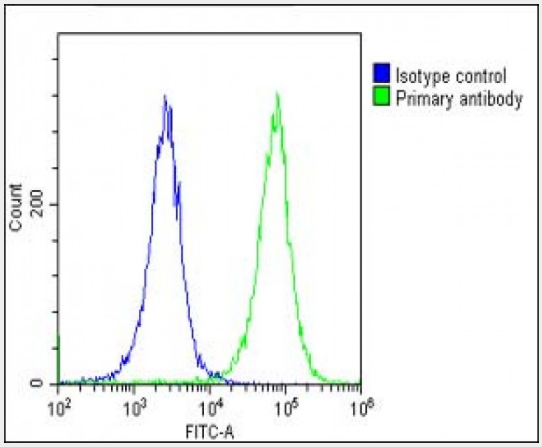


Immunohistochemical analysis of paraffin-embedded human epityphlon tissue using AP11690b performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing Hela cells stained with AP11690B(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP11690B, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

p16INK4a Antibody (C-term E119) - 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, MDM1, 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.

p16INK4a Antibody (C-term E119) - References

Kovacs, E., et al. Proc. Natl. Acad. Sci. U.S.A. 107(12):5429-5434(2010)
Irvine, M., et al. Cell Cycle 9(4):829-839(2010)
Zhang, H.J., et al. J. Cell. Biochem. 106(3):464-472(2009)
Ivanchuk, S.M., et al. Cell Cycle 7(12):1836-1850(2008)
Bandyopadhyay, K., et al. Biochemistry 46(49):14325-14334(2007)

p16INK4a Antibody (C-term E119) - Citations

- Brain lipid-binding protein promotes proliferation and modulates cell cycle in C6 rat glioma cells.