

Product datasheet for **CF500036**

p16INK4A (CDKN2A) Mouse Monoclonal Antibody [Clone ID: OTI4C11]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI4C11
Applications:	IF, IHC, WB
Recommended Dilution:	WB 1:1000, IF 1:100, IHC 1:150
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CDKN2A (NP_000068) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	16.4 kDa
Gene Name:	cyclin dependent kinase inhibitor 2A
Database Link:	NP_000068 Entrez Gene 1029 Human Q8N726



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Background:

P16 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.

Synonyms:

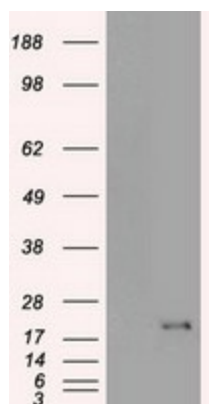
ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4

Protein Families:

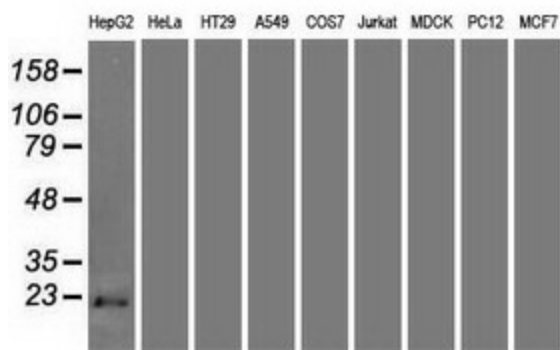
Druggable Genome

Protein Pathways:

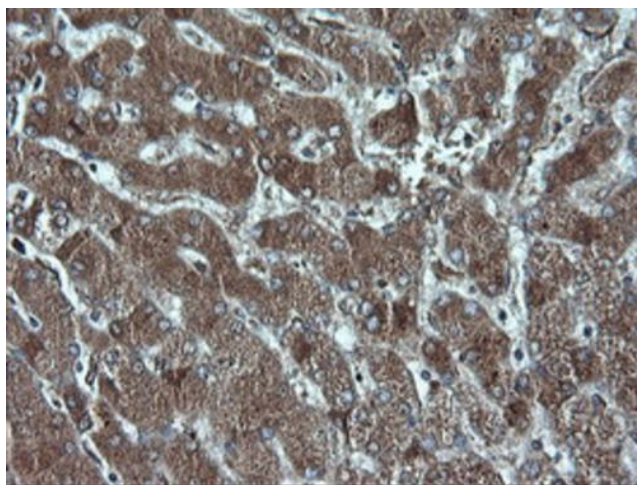
Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer

Product images:

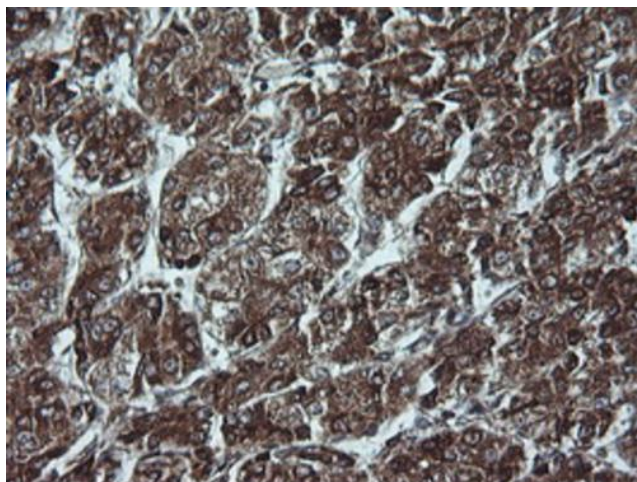
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY P16 (Cat# [RC220937], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-P16 (Cat# [TA500036]). Positive lysates [LY400022] (100ug) and [LC400022] (20ug) can be purchased separately from OriGene.



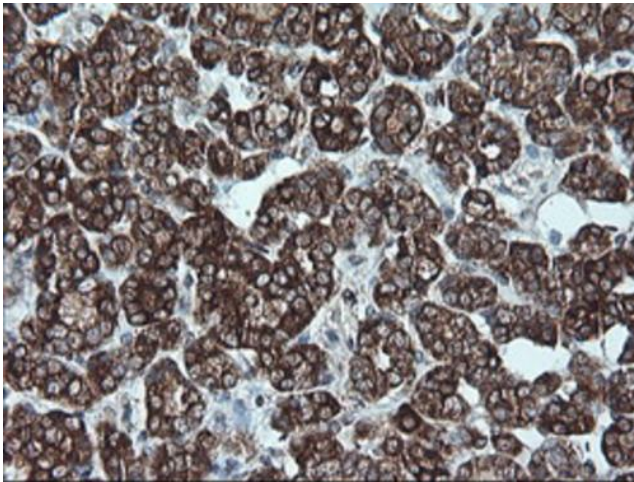
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-P16 monoclonal antibody.



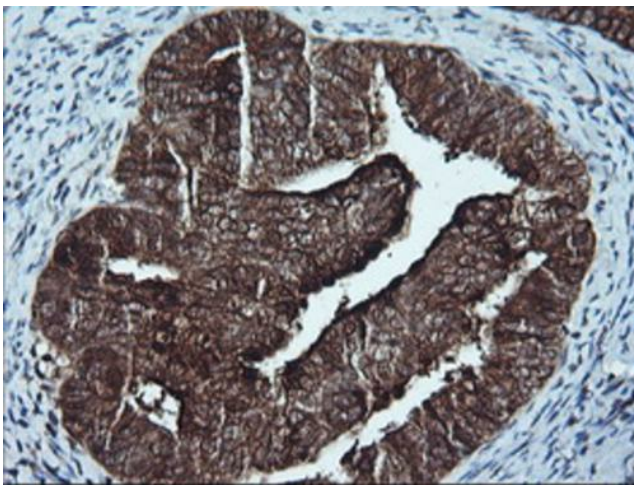
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-P16 mouse monoclonal antibody. ([TA500036]). Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



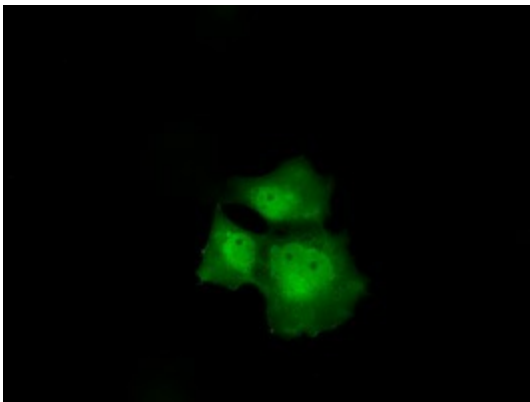
Immunohistochemical staining of paraffin-embedded Carcinoma of Human liver tissue using anti-P16 mouse monoclonal antibody. ([TA500036]). Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



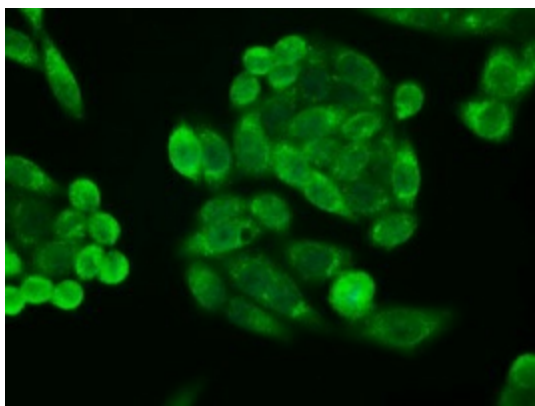
Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-P16 mouse monoclonal antibody. ([TA500036]). Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



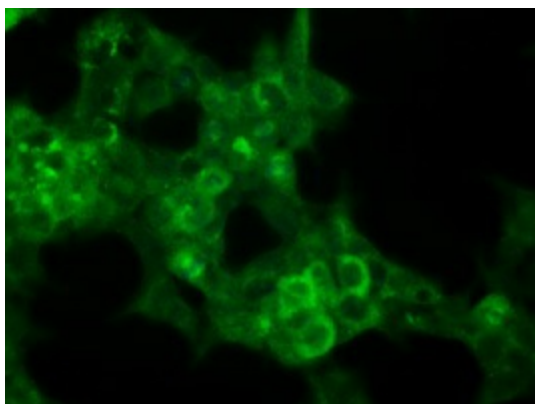
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-P16 mouse monoclonal antibody. ([TA500036]). Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-P16 mouse monoclonal antibody ([TA500036]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY P16 ([RC220937]).



Immunofluorescent staining of HeLa cells using anti-P16 mouse monoclonal antibody (TA500036).



Immunofluorescent staining of HepG2 cells using anti-P16 mouse monoclonal antibody (TA500036).