

**P16 (Mouse and Human) Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1103a**

**Specification**

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**P16 (Mouse and Human) Antibody - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P42771</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>

**Description**

The progression of cells through the cell cycle is regulated by a family of protein kinases known as cyclin-dependent kinases (Cdks). The sequential activation of individual members of this family and their consequent phosphorylation of critical substrates promotes orderly progression through the cell cycle. The cyclins function as differentially expressed positive regulators of Cdks. Negative regulators of the cycle include the p53-inducible 21 kDa WAF1/Cip1 protein designated p21, Kip1 p27 and p16. The complexes formed by Cdk4 and the D-type cyclins have been strongly implicated in the control of cell proliferation during the G1 phase. It has recently been shown that p16 binds to Cdk4 and inhibits the catalytic activity of the Cdk4/cyclin D complex. Moreover, the gene encoding p16 exhibits a high frequency of homozygous deletions and point mutations in established human tumor cell lines.

**Immunogen**

Purified recombinant fragment of P16 expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**P16 (Mouse and Human) Antibody - 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

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

P16 (Mouse and Human) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## P16 (Mouse and Human) Antibody - 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

## P16 (Mouse and Human) Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## P16 (Mouse and Human) Antibody - Images

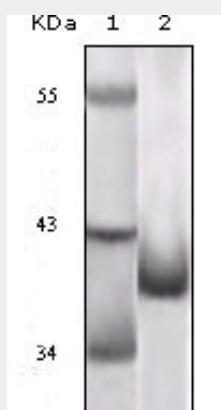


Figure 1: Western blot analysis using P16 mouse mAb against truncated P16 recombinant protein.

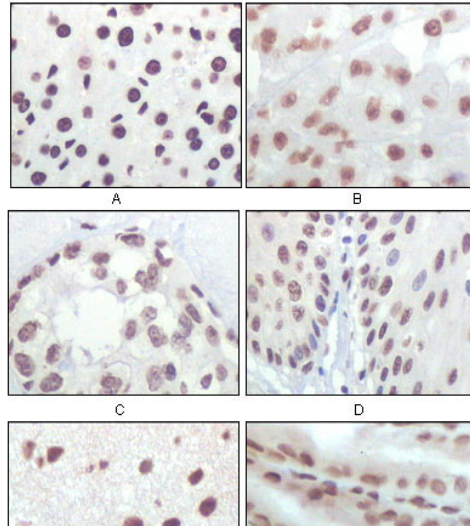


Figure 2: Immunohistochemical analysis of paraffin-embedded rat liver tissue (A), human brain tumor (B), breast cancer (C), esophageal epithelium tissue (D), mouse brain tissue (E) and stomach tissue (F), showing nuclear localization using P16 mouse mAb with DAB staining.

#### **P16 (Mouse and Human) Antibody - References**

1. Hunter, T. 1993. Cell 75: 839-841.
2. Sherr, C.J. 1993. Cell 73: 1059-1065.
3. El-Deiry, W.S., et al. 1993. Cell 75: 817-825.