10320 Camino Santa Fe, Suite G
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P16 (Mouse and Human) Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1103a

Specification

P16 (Mouse and Human) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P42771
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

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.

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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 Cytomety
- Cell Culture

P16 (Mouse and Human) Antibody - Images

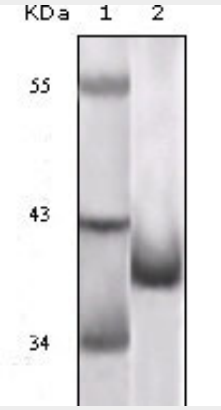

Figure 1: Western blot analysis using P16 mouse mAb against truncated P16 recombinant protein.

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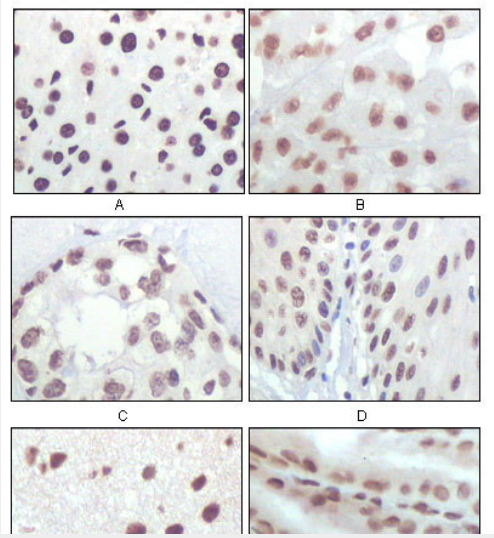

Figure 2: Immunohistochemical analysis of paraffin-embedded rat liver tissue (A), human brain tumor (B), breast cancer (C), esophageal epithelium tissue (D), mouse brain tissue (E) and stomach tisue (F), showing nuclear localization using P16 mouse mAb with DAB staining.

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.