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P16 (Mouse and Human) Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1102a

Product Information

Application	WB, IHC, E
Primary Accession	P42771
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	2D9A12
Isotype	IgG2b
Calculated MW	16533
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.

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 E~~N/A
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.

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

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.

Images

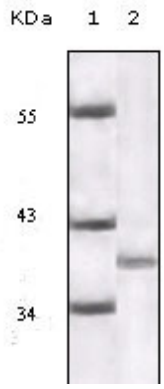

Figure 1: Western blot analysis using P16 mouse mAb against truncated P16 recombinant protein.

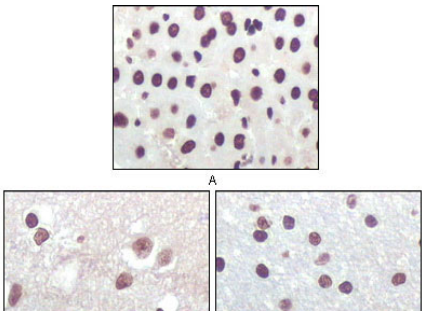

Figure 2: Immunohistochemical analysis of paraffin-embedded rat liver tissue (A), human brain tissue (B) and brain tumor (C), showing nuclear localization using P16 mouse mAb with DAB staining.