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Human P16 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1110a

Product Information

Application	WB, IHC, E
Primary Accession	P42771
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5A8A4; 3G8D12
Isotype	IgG1
Calculated MW	16533
Description	p16 (cyclin-dependent kinase inhibitor 2A, INK4a) is a tumor suppressor protein. It is a specific inhibitor of Cdk 4 / Cdk 6, and a tumor suppressor involved in the pathogenesis of a variety of malignancies. Recent analyses of the p16 INK4a gene revealed homozygous deletions, nonsense, missense, or frameshift mutations in several human cancers. Although the frequency of p16 INK4a abnormalities is higher in tumor derived cell lines than in unselected primary tumors, significant subsets of clinical cases with aberrant p16 INK4a gene have been reported among melanomas, gliomas, esophageal, pancreatic, lung, and urinary bladder carcinomas, and some types of leukemia.
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~~1/500 - 1/2000 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	Human P16 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. Bai, F. et al. Mol. Cell. Biol.2003 23, 1269-1277. 2. Lowe, S.W. and Sherr, C.J. Curr. Opin. Genet.2003 Dev.13, 77-83.3. Sherr, C.J. Nat. Rev. Mol. Cell Biol.2001 2, 731-737.

Images

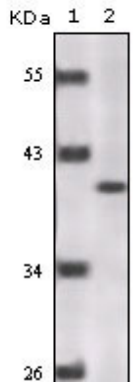

Figure 1: Western blot analysis using P16 mouse mAb against truncated P16 recombinant protein.

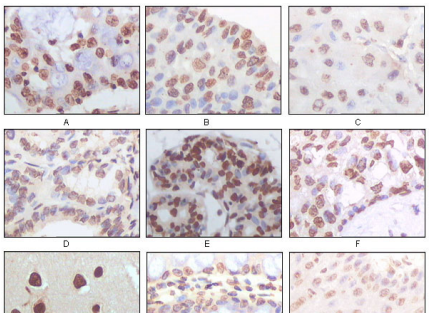

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma (A), esophageal squamous cell carcinoma (B), hepatic cell carcinoma (C), thyroid tumor (D), breast adenofibroma (E), breast infiltrating ductal carcinoma (F), normal cerebrum tissue (G), normal colon tissue (H), normal esophageal tissue (I), showing nuclear localization using P16 mouse mAb with DAB staining.

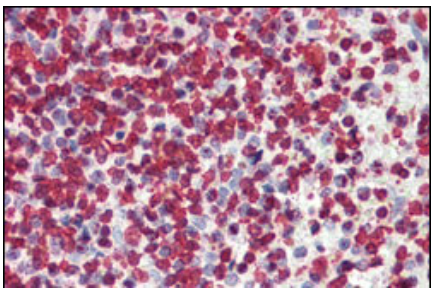

Figure 3: Immunohistochemical analysis of paraffin-embedded human spleen tissues using P16 mouse mAb.