



p16 Monoclonal Antibody

Catalog No	YP-mAb-16798
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CDKN2A
Immunogen	Synthesized peptide derived from p16 . at AA range: 90-170
Specificity	p16 Monoclonal Antibody detects endogenous levels of p16 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	p16;p16 INK4;P16 INK4A;p16-INK4;p16INK4A;CDKN2A;Cyclin-dependent kinase inhibitor 2A isoforms 1/2/3;CDKN2;MTS1;Cyclin-dependent kinase inhibitor 2A;isoforms 1/2/3;Cyclin-dependent kinase 4 inhibitor A;CDK4I;Multiple tumor suppressor 1;MTS-1;p16-INK4a; isoforms 1/2/3
Observed Band	16kD
Calculated Molecular Weight	16kD
Cell Pathway	Cytoplasm . Nucleus .
Tissue Specificity	Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific.
Function	alternative products:Isoform 1 and isoform 4 arise due to the use of two alternative first exons joined to a common exon 2 at the same acceptor site but in different reading frames, resulting in two completely different isoforms, disease:Defects in CDKN2A are a cause of Li-Fraumeni syndrome (LFS) [MIM:151623]. LFS is a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53.,disease:Defects in CDKN2A are involved in tumor formation in a wide range of tissues.,disease:Defects in CDKN2A are the cause of cutaneous malignant melanoma 2 (CMM2) [MIM:155601]. Inheritance is autosomal dominant. Malignant melanoma is a



malignant neoplasm of melanocytes, arising de novo or from a preexisting benign nevus, which occurs most often in the skin but also may involve other sites.,disease:Defects in CDKN2A are the cause of familial atypical multiple mole melanoma-pan

Background

alternative products:Isoform 1 and isoform 4 arise due to the use of two alternative first exons joined to a common exon 2 at the same acceptor site but in different reading frames, resulting in two completely different isoforms, disease:Defects in CDKN2A are a cause of Li-Fraumeni syndrome (LFS) [MIM:151623]. LFS is a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53.,disease:Defects in CDKN2A are involved in tumor formation in a wide range of tissues.,disease:Defects in CDKN2A are the cause of cutaneous malignant melanoma 2 (CMM2) [MIM:155601]. Inheritance is autosomal dominant. Malignant melanoma is a malignant neoplasm of melanocytes, arising de novo or from a preexisting benign nevus, which occurs most often in the skin but also may involve other sites.,disease:Defects in CDKN2A are the cause of familial atypical multiple mole melanoma-pancreatic carcinoma syndrome (FAMMMPC) [MIM:606719]., disease:Defects in CDKN2A are the cause of melanoma-astrocytoma syndrome [MIM:155755]. The melanoma-astrocytoma syndrome is characterized by a dual predisposition to melanoma and neural system tumors, commonly astrocytoma., 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., function:CaMABLE of inducing cell cycle arrest in G1 and G2 phases. Acts as a tumor suppressor. Binds to MDM2 and blocks its nucleocytoplasmic shuttling by sequestering it in the nucleolus. This inhibits the oncogenic action of MDM2 by blocking MDM2-induced degradation of p53 and enhancing p53-dependent transactivation and apoptosis. Also induces G2 arrest and apoptosis in a p53-independent manner by preventing the activation of cyclin B1/CDC2 complexes. Binds to BCL6 and down-regulates BCL6-induced transcriptional repression. Binds to E2F1 and MYC and blocks their transcriptional activator activity but has no effect on MYC transcriptional repression. Binds to TOP1/TOPOI and stimulates its activity. This complex binds to rRNA gene promoters and may play a role in rRNA transcription and/or maturation. Interacts with NPM1/B23 and promotes its polyubiquitination and degradation, thus inhibiting rRNA processing. Interacts with UBE2I/UBC9 and enhances sumoylation of a number of its binding partners including MDM2 and E2F1. Binds to HUWE1 and represses its ubiquitin ligase activity. May play a role in controlling cell proliferation and apoptosis during mammary gland development.,online information:Database of CDKN2A germline and somatic variants,online information:P16INK4a entry,polymorphism:Genetic variations in CDKN2A may underlie susceptibility to uveal melanoma [MIM:155720]. Uveal melanoma is the most common type of ocular malignant tumor, consisting of overgrowth of uveal melanocytes and often preceded by a uveal nevus.,similarity:Belongs to the CDKN2 cyclin-dependent kinase inhibitor family.,similarity:Contains 4 ANK repeats.,subunit:Does not interact with cyclins, CDC2, CDK2, CDK4, CDK5 or CDK6. Binds to BCL6, E2F1, HUWE1, MDM2, MYC, NPM1/B23, TOP1/TOPOI and UBE2I/UBC9. Interacts with TBRG1. Interacts with CDKN2AIP and E4F1., subunit:Heterodimer with CDK4 or CDK6. Isoform 3 does not bind to CDK4., tissue specificity:Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific.,

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



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170—
130—
100—
70—
55—
40—
35—
25—

15—



p16

Western Blot analysis of various cells using p16
Monoclonal Antibody