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CDKN2A/p14ARF Antibody

Rabbit mAb
Catalog # AP91819

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	Q8N726
Reactivity	Human
Clonality	Monoclonal
Other Names	ARF; CDK4I; CDKN2; CDKN2A; CMM2; INK4; INK4a; MLM; MTS1; p14; p16; p16INK4a; P19ARF; TP16;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	13903

Additional Information

Dilution	WB 1:500~1:1000 ICC/IF 1:50~1:200 IP 1:50 FC 1:80
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CDKN2A/p14ARF
Description	The gene for CDK2NA generates several transcripts/proteins which differ from each other in their first exons. Three of these transcripts are generated by alternative splicing (isoform 1 a.k.a p16INK4A, isoform 2 and isoform 3 a.k.a p12), two of which are known to function as inhibitors of CDK4 kinase.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

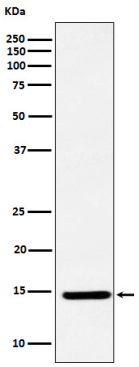
Protein Information

Name	CDKN2A {ECO:0000312|EMBL:AAM77919.1, ECO:0000312|HGNC:HGNC:1787}
Function	Capable 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. Plays a role in inhibiting

ribosome biogenesis, perhaps by binding to the nucleolar localization sequence of transcription termination factor TTF1, and thereby preventing nucleolar localization of TTF1 (By similarity). Interacts with COMMD1 and promotes its 'Lys63'-linked polyubiquitination. 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.

Cellular Location Nucleus, nucleolus. Nucleus, nucleoplasm

Images



Western blot analysis of CDKN2A/p14ARF expression in PC3 cell lysate.