ARG62577
anti-CDKN2A / p14 ARF antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CDKN2A / p14 ARF
Tested Reactivity	Hu
Tested Application	IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CDKN2A / p14 ARF
Species	Human
Immunogen	A synthetic peptide, corresponding to aa119-132 (Cys-GRARCLGPSARGPG) from the C-terminus of human p14ARF. (Zhang Y, et al. Cell, 92: 725-734, 1998)
Epitope	aa 119-132
Conjugation	Un-conjugated
Alternate Names	Alternative reading frame; CDK4I; P19ARF; P16INK4A; CDKN2; Tumor suppressor ARF; MTS-1; P14; P16; P19; Cyclin-dependent kinase inhibitor 2A; P16INK4; MLM; p14ARF; MTS1; INK4; TP16; P16-INK4A; CMM2; ARF; P14ARF; INK4A

Application Instructions

Application table

Application	Dilution
IHC-P	1:2000
IP	1:2000
WB	1:1000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HeLa cells,Cervical Carcinoma.

Properties

Form	Liquid
Purification	Purified Antibody
Buffer	1X PBS and 0.1% Sodium azide
Preservative	0.1% Sodium azide
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated

	freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 1029 Human Swiss-port # P42771 Human
Gene Symbol	CDKN2A
Gene Full Name	cyclin-dependent kinase inhibitor 2A
Background	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]
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. 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. Isoform smARF may be involved in regulation of autophagy and caspase-independent cell death; the short-lived mitochondrial isoform is stabilized by C1QBP. [UniProt]
Highlight	Related products: CDKN2A antibodies; CDKN2A Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Senescence Marker Antibody Panel is launched
Research Area	Chondrogenesis Study antibody
Calculated Mw	14 kDa
PTM	Ubiquitinated in normal cells by TRIP12 via the ubiquitin fusion degradation (UFD) pathway, a process that mediates ubiquitination at the N-terminus, regardless of the absence of lysine residues. Ubiquitination leads to its proteasomal degradation. In cancer cells, however, TRIP12 is located in a different cell compartment, preventing ubiquitination and degradation.