

**Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1222a

### Specification

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#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - Product Information

Application	WB
Primary Accession	<a href="#">Q8N726</a>
Other Accession	<a href="#">NP_000068</a> , <a href="#">1029</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	13903

#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - Additional Information

Gene ID 1029

#### Other Names

Cyclin-dependent kinase inhibitor 2A, isoform 4, p14ARF, p19ARF, CDKN2A  
{ECO:0000312|EMBL:AAM77919.1}, CDKN2, MLM

#### Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### 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

Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - 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

#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - Images



AF1222a (1 µg/ml) staining of HeLa Lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - 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, MDM1, 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.

#### **Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody - References**

Glycemia determines the effect of type 2 diabetes risk genes on insulin secretion. Heni M, et al. *Diabetes*, 2010 Aug 29. PMID 20802253.

Common genetic polymorphisms in Moyamoya and atherosclerotic disease in Europeans. Roder C, et al. *Childs Nerv Syst*, 2010 Aug 6. PMID 20694560.

Methylation of the p16 gene is frequently detected in lymphatic-invasive gastric cancer. Goto T, et al. *Anticancer Res*, 2010 Jul. PMID 20683001.

Gene methylation of SFRP2, P16, DAPK1, HIC1, and MGMT and KRAS mutations in sporadic colorectal cancer. Pehlivan S, et al. *Cancer Genet Cytogenet*, 2010 Sep. PMID 20682398.

Genetic analysis of three important genes in pigmentation and melanoma susceptibility: CDKN2A, MC1R and HERC2/OCA2. Ibarrola-Villava M, et al. *Exp Dermatol*, 2010 Sep. PMID 20629734.