

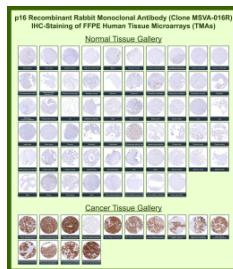
## p16 INK4a Antibody / CDKN2A [clone MSVA-016R] (V6059)

Catalog No.	Formulation	Size
V6059-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6059-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | RABBIT MONOCLONAL

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Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-016R
UniProt	P42771
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This p16 INK4a/CDKN2A antibody is available for research use only.



p16 INK4a/CDKN2A antibody (clone MSVA-016R) tested on many normal and cancer tissues. The immunohistochemistry staining in these tissues aligns with the expression data in Human Protein Atlas.  
 Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121°C in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37°C for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

### Description

p16 INK4a antibody targets Cyclin-dependent kinase inhibitor 2A, a tumor suppressor protein encoded by the CDKN2A gene. Cyclin-dependent kinase inhibitor 2A, commonly referred to as p16 INK4a, is a key regulator of cell cycle progression through inhibition of cyclin-dependent kinases CDK4 and CDK6. By preventing phosphorylation of the retinoblastoma protein, p16 INK4a enforces G1 cell cycle arrest and restricts uncontrolled cellular proliferation.

As a member of the INK4 family of cyclin-dependent kinase inhibitors, p16 INK4a plays an essential role in cellular senescence, stress responses, and oncogenic signaling control. p16 INK4a antibody, also widely referred to as CDKN2A

antibody in the literature, is frequently used to study mechanisms of cell cycle regulation and checkpoint integrity. Although predominantly nuclear, p16 INK4a may also exhibit cytoplasmic localization depending on cellular context and regulatory state.

Expression of CDKN2A is tightly regulated and influenced by epigenetic modification, oncogene activation, and cellular aging. p16 INK4a antibody is therefore useful for examining pathways associated with senescence, tumor suppressor function, and dysregulated proliferation. Altered expression patterns of Cyclin-dependent kinase inhibitor 2A are commonly investigated in disease-related research settings, particularly in studies of abnormal cell cycle control.

In cancer research, p16 INK4a is one of the most extensively studied cell cycle regulators. Aberrant expression of CDKN2A has been associated with changes in proliferative capacity and checkpoint function in a wide range of tumor types. p16 INK4a antibody is widely applied in studies focused on tumor biology, cell cycle dysregulation, and oncogenic transformation mechanisms.

This p16 INK4a antibody, clone MSVA-016R, is designed to recognize Cyclin-dependent kinase inhibitor 2A in research applications. Clone MSVA-016R supports detection of CDKN2A expression and localization and is suitable for studies examining cell cycle regulation, senescence pathways, and CDK inhibitor signaling.

## Application Notes

1. Optimal dilution of the p16 INK4a/CDKN2A antibody should be determined by the researcher.
2. This p16 INK4a/CDKN2A antibody is recombinantly produced by expression in human HEK293 cells.

## Immunogen

Purified recombinant prokaryotic full-length human p16INK4a protein was used as the immunogen for the p16 INK4a/CDKN2A antibody.

## Storage

CDKN2A/p14ARF antibody with sodium azide - store at 2 to 8°C; antibody without sodium azide - store at -20 to -80°C.