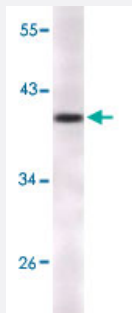


# CDKN2A monoclonal antibody, clone 5A8A4,3G8D12

Catalog # MAB8309

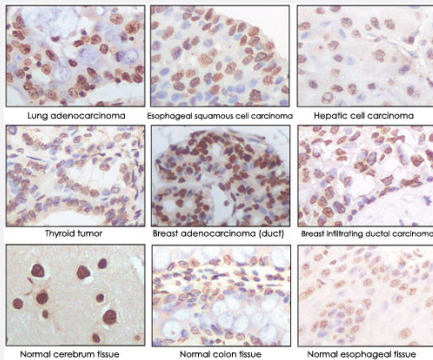
Size 100 uL

## Applications



### Western Blot (Recombinant protein)

Western blot analysis using CDKN2A monoclonal antibody, clone 5A8A4, 3G8D12 (Cat # MAB8309) against truncated CDKN2A recombinant protein.



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human normal, hyperplastic and tumor tissue showing nuclear location using CDKN2A monoclonal antibody, clone 5A8A4, 3G8D12 (Cat # MAB8309) with DAB staining.

## Specification

|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| <b>Product Description</b> | Mouse monoclonal antibody raised against partial recombinant CDKN2A. |
| <b>Immunogen</b>           | Recombinant protein corresponding to truncated human CDKN2A.         |
| <b>Host</b>                | Mouse                                                                |
| <b>Reactivity</b>          | Human                                                                |
| <b>Form</b>                | Liquid                                                               |

|                        |                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Recommend Usage</b> | Western Blot (1:500-1:2000)<br>Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:200-1:1000)<br>ELISA (1:10000)<br>The optimal working dilution should be determined by the end user. |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                       |            |
|-----------------------|------------|
| <b>Storage Buffer</b> | In ascites |
|-----------------------|------------|

|                            |                                                                    |
|----------------------------|--------------------------------------------------------------------|
| <b>Storage Instruction</b> | Store at -20°C.<br>Aliquot to avoid repeated freezing and thawing. |
|----------------------------|--------------------------------------------------------------------|

## Applications

- Western Blot (Recombinant protein)

Western blot analysis using CDKN2A monoclonal antibody, clone 5A8A4, 3G8D12 (Cat # MAB8309) against truncated CDKN2A recombinant protein.

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- Enzyme-linked Immunoabsorbent Assay

## Gene Info — CDKN2A

|                      |                      |
|----------------------|----------------------|
| <b>Entrez GeneID</b> | <a href="#">1029</a> |
|----------------------|----------------------|

|                  |        |
|------------------|--------|
| <b>Gene Name</b> | CDKN2A |
|------------------|--------|

|                   |                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------|
| <b>Gene Alias</b> | ARF, CDK4I, CDKN2, CMM2, INK4, INK4a, MLM, MTS1, TP16, p14, p14ARF, p16, p16INK4, p16INK4a, p19 |
|-------------------|-------------------------------------------------------------------------------------------------|

|                         |                                                                     |
|-------------------------|---------------------------------------------------------------------|
| <b>Gene Description</b> | cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) |
|-------------------------|---------------------------------------------------------------------|

|                |                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Omim ID</b> | <a href="#">151623</a> <a href="#">155601</a> <a href="#">155755</a> <a href="#">600160</a> <a href="#">606719</a> |
|----------------|--------------------------------------------------------------------------------------------------------------------|

|                      |                           |
|----------------------|---------------------------|
| <b>Gene Ontology</b> | <a href="#">Hyperlink</a> |
|----------------------|---------------------------|

## Gene Summary

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. [provided by RefSeq]

## Other Designations

CDK4 inhibitor p16-INK4|OTTHUMP00000021147|OTTHUMP00000021148|cell cycle negative regulator beta|cyclin-dependent kinase inhibitor 2A|cyclin-dependent kinase inhibitor p16|multiple tumor suppressor 1

## Publication Reference

- [Comparative Transcriptomic Profiling in HPV-associated Cervical Carcinogenesis: Implication of MHC Class II and Immunoglobulin Heavy Chain Genes.](#)

Shandra Devi Balasubramaniam, Kah Keng Wong, Chern Ein Oon, Venugopal Balakrishnan, Gurjeet Kaur.

Life Sciences 2020 Sep; 256:118026.

Application: IHC-P, Human, Human cervix, Human squamous cell carcinoma

- [Haploinsufficiency of p18\(INK4c\) sensitizes mice to carcinogen-induced tumorigenesis.](#)

Bai F, Pei XH, Godfrey VL, Xiong Y.

Molecular and Cellular Biology 2003 Feb; 23(4):1269.

Application: IHC-P, Mouse, Abdominal cancer, Liver cancer, Lung cancer

- [Tumor suppression by Ink4a-Arf: progress and puzzles.](#)

Lowe SW, Sherr CJ.

Biochemistry 2003 Feb; 13(1):77.

- [The INK4a/ARF network in tumour suppression.](#)

Sherr CJ.

Nat Rev Mol Cell Biol 2001 Oct; 2(10):731.

Application: IHC, WB-Tr, Human, Mouse, Cancers, Mammalian cells

## Pathway

- [Bladder cancer](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [Glioma](#)
- [Melanoma](#)
- [Non-small cell lung cancer](#)
- [p53 signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)

## Disease

- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Aneuploidy](#)
- [Asthma](#)
- [Ataxia telangiectasia](#)
- [Atherosclerosis](#)
- [Barrett Esophagus](#)
- [Bile Duct Neoplasms](#)
- [Birth Weight](#)
- [Brain Ischemia](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)

- [Calcinosis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Chagas Disease](#)
- [Cholangiocarcinoma](#)
- [Cholangitis](#)
- [Chromosomal Instability](#)
- [Chromosome Aberrations](#)
- [Chronic Disease](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Cystadenocarcinoma](#)
- [Diabetes](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Dysplastic Nevus Syndrome](#)
- [Eczema](#)
- [Esophageal Neoplasms](#)
- [Eye Neoplasms](#)
- [Fetal Diseases](#)
- [Genetic Predisposition to Disease](#)

- [Glioblastoma](#)
- [Glioma](#)
- [Glucose Intolerance](#)
- [Glucose Metabolism Disorders](#)
- [Head and Neck Neoplasms](#)
- [Heart Diseases](#)
- [Hemorrhage](#)
- [HIV Infections](#)
- [Hyperglycemia](#)
- [Hyperlipidemias](#)
- [Hyperlipoproteinemia Type II](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [Insulin Resistance](#)
- [Intracranial Aneurysm](#)
- [Kidney Failure](#)
- [Laryngeal Neoplasms](#)
- [Leukemia](#)
- [Leukoplakia](#)
- [Liver Cirrhosis](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Malnutrition](#)
- [Melanoma](#)
- [Meningeal Neoplasms](#)

- [Meningioma](#)
- [Microsatellite Instability](#)
- [Mouth Neoplasms](#)
- [Multiple endocrine neoplasia](#)
- [Multiple Endocrine Neoplasia Type 1](#)
- [Multiple Myeloma](#)
- [Myelodysplastic Syndromes](#)
- [Myocardial Infarction](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Nevus](#)
- [Obesity](#)
- [Occupational Diseases](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Periodontitis](#)
- [Pharyngeal Neoplasms](#)
- [Precancerous Conditions](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)

- [Rectal Neoplasms](#)
- [Retinoblastoma](#)
- [Rhinitis](#)
- [Schizophrenia](#)
- [Skin Neoplasms](#)
- [Starvation](#)
- [Stomach Neoplasms](#)
- [Stroke](#)
- [Sunburn](#)
- [Urinary Bladder Neoplasms](#)
- [Uveal Neoplasms](#)
- [Vascular Diseases](#)
- [Weight Gain](#)
- [Werner syndrome](#)
- [Wolfram Syndrome](#)