

## Product datasheet for **CF802082**

### **p16INK4A (CDKN2A) Mouse Monoclonal Antibody [Clone ID: OTI5H8]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	OTI5H8
<b>Applications:</b>	IF, IHC, WB
<b>Recommended Dilution:</b>	WB 1:2000, IF 1:100
<b>Reactivity:</b>	Human
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Full length human recombinant protein of human CDKN2A (NP_000068) produced in E.coli.
<b>Formulation:</b>	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
<b>Reconstitution Method:</b>	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
<b>Purification:</b>	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Predicted Protein Size:</b>	16.4 kDa
<b>Gene Name:</b>	cyclin dependent kinase inhibitor 2A
<b>Database Link:</b>	<a href="#">NP_000068</a> <a href="#">Entrez Gene 1029 Human</a> <a href="#">Q8N726</a>



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**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]

**Synonyms:**

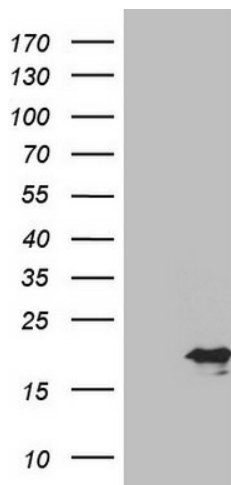
ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4

**Protein Families:**

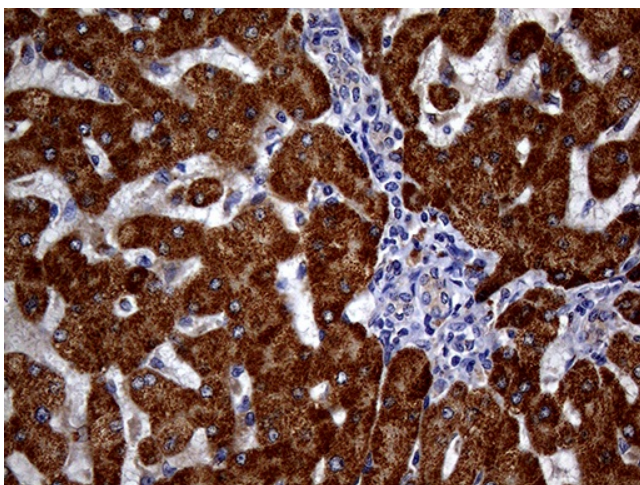
Druggable Genome

**Protein Pathways:**

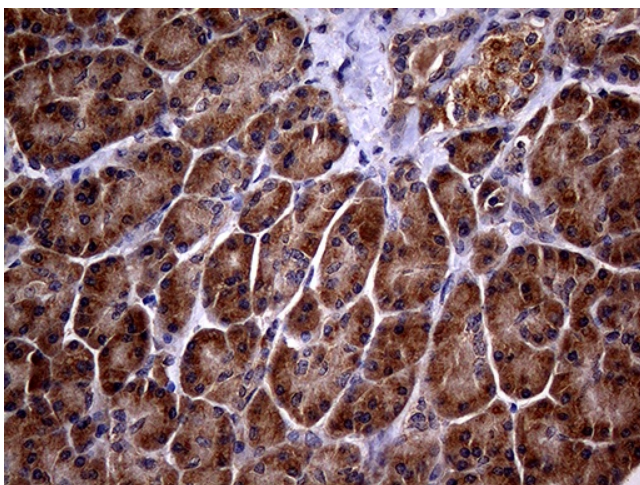
Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer

**Product images:**

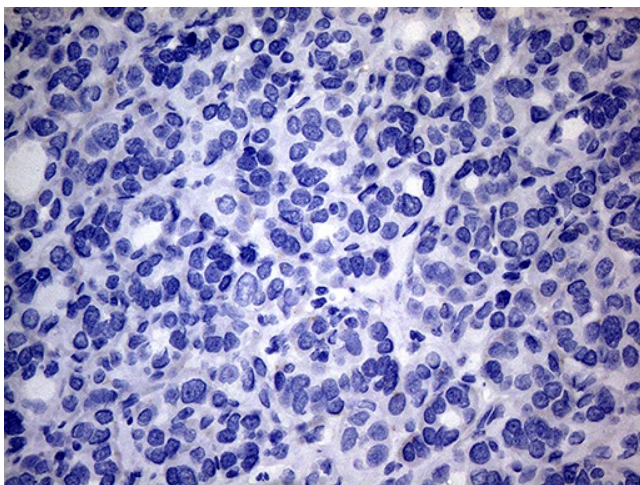
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDKN2A ([RC220937], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDKN2A (1:2000). Positive lysates [LY400022] (100ug) and [LC400022] (20ug) can be purchased separately from OriGene.



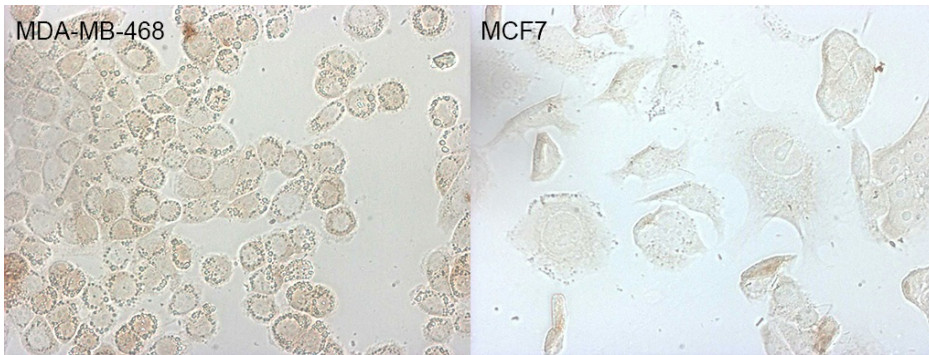
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-CDKN2A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA802082]) (1:150)



Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-CDKN2A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA802082]) (1:150)



Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-CDKN2A mouse monoclonal antibody. This figure shows negative staining. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min [TA802082]) (1:150).



Immunocytochemistry staining of MDA-MB-468 cells using anti-CDKN2A mouse monoclonal antibody ([TA802082]). The right is MCF7 cells as negative control (1:100).