

## Product datasheet for **CF808276**

### **p21 (CDKN1A) Mouse Monoclonal Antibody [Clone ID: OTI4B11]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	OTI4B11
<b>Applications:</b>	IHC, WB
<b>Recommended Dilution:</b>	WB 1:2000, IHC 1:150
<b>Reactivity:</b>	Human
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Human recombinant protein fragment corresponding to amino acids 2-164 of human CDKN1A(NP_510867) 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>	17.9 kDa
<b>Gene Name:</b>	cyclin dependent kinase inhibitor 1A
<b>Database Link:</b>	<a href="#">NP_510867</a> <a href="#">Entrez Gene 1026 Human</a> <a href="#">P38936</a>



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**Background:**

This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen (PCNA), a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Nov 2010]

**Synonyms:**

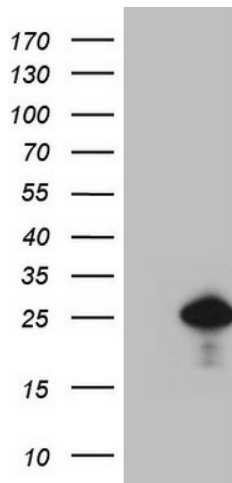
CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1

**Protein Families:**

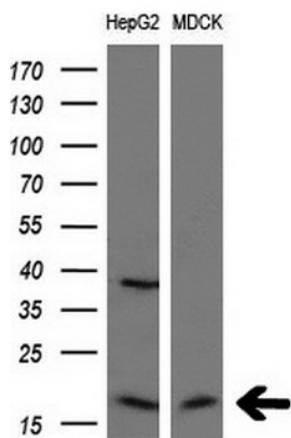
Druggable Genome

**Protein Pathways:**

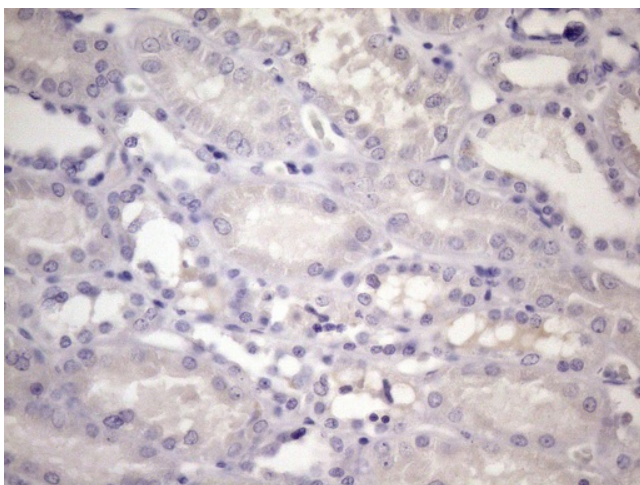
Bladder cancer, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Glioma, Melanoma, p53 signaling pathway, Pathways in cancer, Prostate cancer

**Product images:**

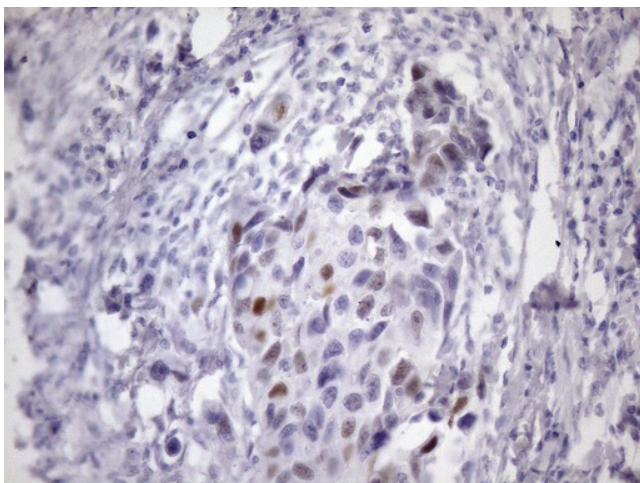
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDKN1A ([RC201765], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDKN1A (1:2000). Positive lysates [LY409213] (100ug) and [LC409213] (20ug) can be purchased separately from OriGene.



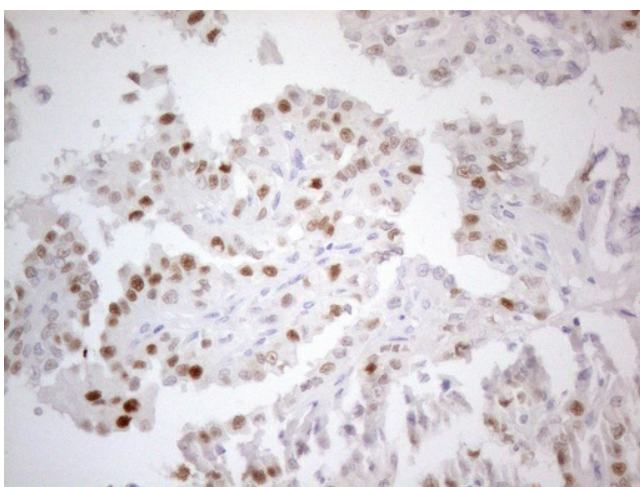
Western blot analysis of extracts (10ug) from 2 different cell lines by using anti-CDKN1A monoclonal antibody (1:200).



Immunohistochemical staining of paraffin-embedded Human Kidney tissue using anti-CDKN1A mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human kidney tissue using anti-CDKN1A mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-CDKN1A mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.