

# Anti-p21 Antibody [A8C12]

HA601017



<b>Product Type:</b>	Mouse monoclonal IgG2a, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	IHC-P
<b>Molecular Wt:</b>	Predicted band size: 18 kDa
<b>Clone number:</b>	A8C12

**Description:** p21WAF1, also known as cyclin-dependent kinase inhibitor 1 or CDK-interacting protein 1, is a protein that in humans is encoded by the CDKN1A gene located on chromosome 6 (6p21.2). May be the important intermediate by which p53/TP53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions in the nuclear localization and assembly of cyclin D-CDK4 complex and promotes its kinase activity towards RB1. At higher stoichiometric ratios, inhibits the kinase activity of the cyclin D-CDK4 complex. p21 is expressed in all adult human tissues. In tumors, the expression of p21 has been studied by immunohistochemical methods in a wide range of human tumors, such as gastric carcinoma, non-small cell lung carcinoma, and thyroid carcinoma. The expression of p21 is associated with favorable prognosis in various tumors.

**Immunogen:** Recombinant protein within full length of human p21.

**Positive control:** Human cervical well-differentiated squamous cell carcinoma tissue, human thyroid carcinoma tissue.

**Subcellular location:** Nucleus, Cytoplasm.

**Database links:** SwissProt: P38936 Human

**Recommended Dilutions:**  
IHC-P 1:400

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

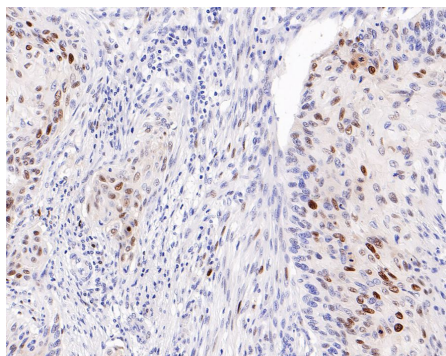
Technical: 0086-571-89986345

Service mail: support@huabio.cn

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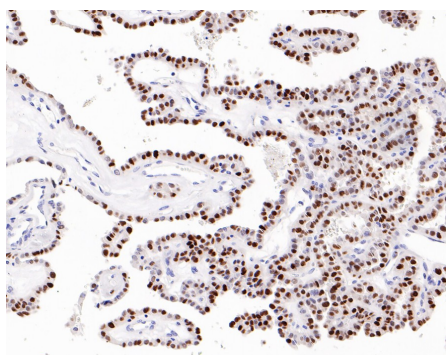
Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images



**Fig1:** Immunohistochemical analysis of paraffin-embedded human cervical well-differentiated squamous cell carcinoma tissue with Mouse anti-p21 antibody (HA601017) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA601017) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig2:** Immunohistochemical analysis of paraffin-embedded human thyroid carcinoma tissue with Mouse anti-p21 antibody (HA601017) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA601017) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Kaya Z. et. al. CDKN1A (p21 gene) polymorphisms correlates with age in esophageal cancer. Mol Biol Rep. 2022 Jan
2. Kreis NN. et. al. The Multifaceted p21 (Cip1/Waf1/CDKN1A) in Cell Differentiation, Migration and Cancer Therapy. Cancers (Basel). 2019 Aug

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