

Anti-p16INK4a Antibody [PSH15-40]

HA723746



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	WB, IHC-P, IP
Molecular Wt:	Predicted band size: 18 kDa
Clone number:	PSH15-40

Description: p16 (also known as p16INK4a, cyclin-dependent kinase inhibitor 2A, CDKN2A, multiple tumor suppressor 1 and numerous other synonyms), is a protein that slows cell division by slowing the progression of the cell cycle from the G1 phase to the S phase, thereby acting as a tumor suppressor. It is encoded by the CDKN2A gene. A deletion (the omission of a part of the DNA sequence during replication) in this gene can result in insufficient or non-functional p16, accelerating the cell cycle and resulting in many types of cancer. p16 can be used as a biomarker to improve the histological diagnostic accuracy of grade 3 cervical intraepithelial neoplasia (CIN). p16 is also implicated in the prevention of melanoma, oropharyngeal squamous cell carcinoma, cervical cancer, vulvar cancer and esophageal cancer. p16 was discovered in 1993. It is a protein with 148 amino acids and a molecular weight of 16 kDa that comprises four ankyrin repeats. The name of p16 is derived from its molecular weight, and the alternative name p16INK4a refers to its role in inhibiting cyclin-dependent kinase CDK4.

Positive control: A20 cell lysate, MEF cell lysate, mouse spleen tissue.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P51480 Mouse

Recommended Dilutions:

WB	1:2,000
IHC-P	1:200
IP	1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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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: Western blot analysis of p16INK4a on different lysates with Rabbit anti-p16INK4a antibody (HA723746) at 1/2,000 dilution.

Lane 1: A20 cell lysate
Lane 2: NIH/3T3 cell lysate (negative)
Lane 3: MEF cell lysate

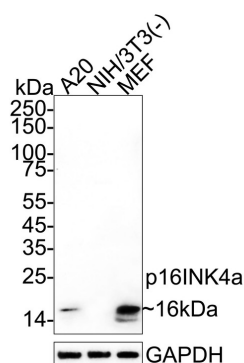
Lysates/proteins at 20 µg/Lane.

Predicted band size: 18 kDa

Observed band size: 16 kDa

Exposure time: 1 minute 50 seconds; ECL: K1801;

4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA723746) at 1/2,000 dilution was used in primary antibody dilution (K1803) at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

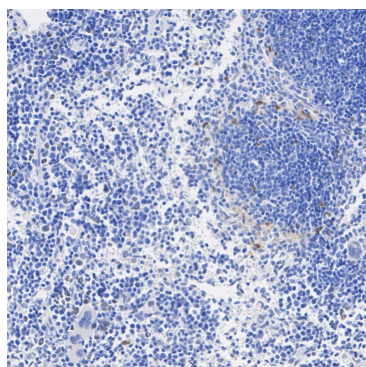


Fig2: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-p16INK4a antibody (HA723746) at 1/200 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA723746) at 1/200 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.

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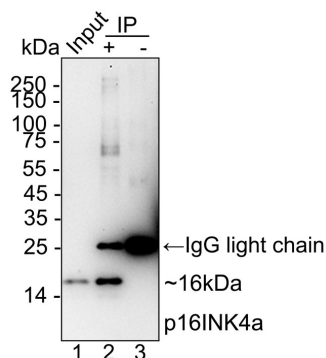


Fig3: p16INK4a was immunoprecipitated from 0.2 mg MEF cell lysate with HA723746 at 2 μ g/10 μ l beads. Western blot was performed from the immunoprecipitate using HA723746 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: MEF cell lysate (input)

Lane 2: HA723746 IP in MEF cell lysate

Lane 3: Rabbit IgG instead of HA723746 in MEF cell lysate

Blocking/Dilution buffer: primary antibody dilution (K1803)

Exposure time: 3 minutes; ECL: K1801

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

Background References

1. Safwan-Zaiter H et al. P16INK4A-More Than a Senescence Marker. Life (Basel). 2022 Aug
2. Shi J et al. P16ink4a overexpression ameliorates cardiac remodeling of mouse following myocardial infarction via CDK4/pRb pathway. Biochem Biophys Res Commun. 2022 Mar

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