abcam

ab54210

Anti-CDKN2A/p16INK4a antibody [2D9A12]

Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) is a mouse monoclonal antibody detecting CDKN2A/p16INK4a in **Flow Cytometry, IHC-P**. Suitable for **Human, Rat**.

- Over 140 publications
- Trusted since 2007

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	Preservative: 0.03% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CDKN2A. The exact immunogen used to generate this antibody is proprietary information. Database link P42771
Clone number	2D9A12
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

IHC-P

Tested

Species	Rat
Dilution info	1/200 - 1/1000
Notes	Recommended antigen retrieval:Place slides in a special glass slide holder and fill in the rack with slides to ensure even heating.Rinse rack in 1L of Citrate buffer in ordinary pressure cooker,(0.01M,pH6.0) to immerse all slides.Cover the cap and heat for 15-20 minutes on electric cooker until water boils.Begin timing, only 2 minutes in high-pressureRemove the pressure cooker, Allow it to cool(Cool the slides at room temperature)Rinse the slides in PBS for 5 minutes Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/200 - 1/1000
Notes	Recommended antigen retrieval:Place slides in a special glass slide holder and fill in the rack with slides to ensure even heating.Rinse rack in 1L of Citrate buffer in ordinary pressure cooker,(0.01M,pH6.0) to immerse all slides.Cover the cap and heat for 15-20 minutes on electric cooker until water boils.Begin timing, only 2 minutes in high-pressureRemove the pressure cooker, Allow it to cool(Cool the slides at room temperature)Rinse the slides in PBS for 5 minutes Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Flow Cyt

Tested

Species	Human
Dilution info	1/50
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

Target data

See full target information CDKN2A

Function	Acts as a negative regulator of the proliferation of normal cells by interacting strongly with CDK4 and CDK6. This inhibits their ability to interact with cyclins D and to phosphorylate the retinoblastoma protein.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications

Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) is a mouse monoclonal antibody and is validated for use in Flow Cyt, IHC-P in human, rat samples.
Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) specifically detects CDKN2A/p16INK4a (UniProt ID: P42771; Molecular weight: 17kDa) and is sold in 100 µL selling sizes.

Quality and Validation

Abcam's high quality validation processes ensure Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) has high sensitivity and specificity.
Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) has been cited over 142 times in peer reviewed journals and is trusted by the scientific community.

Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210) has 18 independent reviews from customers.

Target Information

CDKN2A, also known as cyclin-dependent kinase inhibitor 2A, is a crucial tumor suppressor gene located on chromosome 9p211. It encodes two proteins, p16INK4a and p14ARF, both of which play significant roles in regulating the cell cycle. p16INK4a inhibits cyclin-dependent kinases 4 and 6 (CDK4 and CDK6), preventing the progression from the G1 to S phase of the cell cycle. This inhibition is vital for controlling cell proliferation and preventing tumor growth. Mutations or deletions in CDKN2A are frequently associated with various cancers, including melanoma, pancreatic cancer, and head and neck squamous cell carcinoma.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

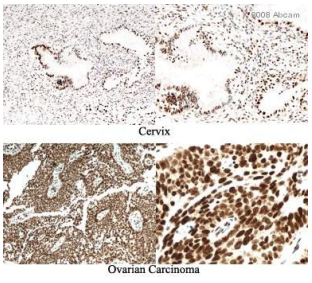
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

8 product images



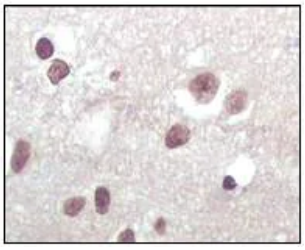
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

CDKN2A/p16INK4a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CDKN2A/p16INK4a antibody

ab54210 staining CDKN2A/p16INK4a in human cervix and ovarian carcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).

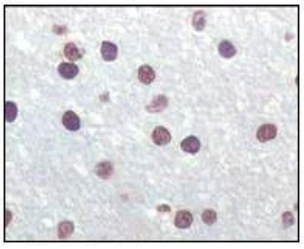
Image is courtesy of an anonymous customer review

Tissue was fixed with formaldehyde and antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/4000) for 20 minutes at 25°C. An undiluted HRP-conjugated mouse polymer was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

ab54210 at a 1:500 staining CDKN2A/p16INK4a in human brain tissue by immunohistochemistry using paraffin embedded tissue. Nuclear staining (DAB staining) is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

CDKN2A/p16INK4a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CDKN2A/p16INK4a antibody

ab54210 at a 1:500 staining CDKN2A/p16INK4a in human brain tumor tissue by immunohistochemistry using paraffin embedded tissue. Nuclear staining (DAB) is shown.

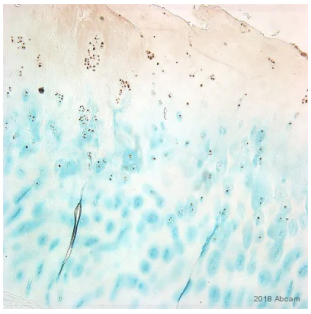
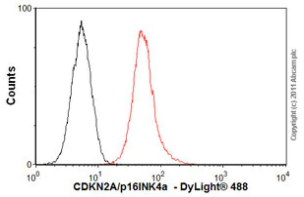


Image is courtesy of an anonymous customer review by a verified customer

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

Zinc buffered formalin-fixed human cartilage tissue stained for CDKN2A/p16INK4a using ab54210 at a 1/200 dilution for 15 hours at 4°C. A Goat-anti-mouse polyclonal-biotin was used at the secondary at a 1/200 dilution. For further detail please see abreview.



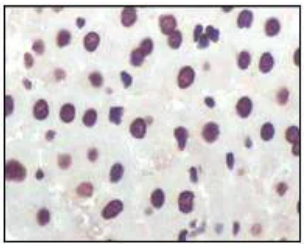
Flow Cytometry - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

CDKN2A/p16INK4a Flow Cytometry staining using mouse Anti-CDKN2A/p16INK4a antibody

Overlay histogram showing HeLa (Human epithelial cell line from cervix adenocarcinoma) cells stained with ab54210 (red line).
The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab54210, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x10^6 cells) used under the same conditions.

Acquisition of >5,000 events was performed.

This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

CDKN2A/p16INK4a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CDKN2A/p16INK4a antibody

ab54210 at a 1:500 staining CDKN2A/p16INK4a in rat liver tissue by immunohistochemistry using paraffin embedded tissue. Nuclear staining (DAB staining) is shown.

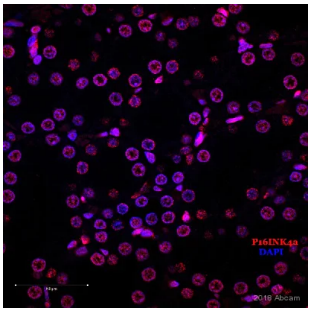


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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

CDKN2A/p16INK4a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CDKN2A/p16INK4a antibody

10% formalin-fixed rat kidney tissue stained for CDKN2A/p16INK4a using ab54210 at a 1/500 dilution for 16 hours at 4°C. A Cy3-conjugated donkey-anti-mouse was used at the secondary at a 1/200 dilution. For further detail please see abreview.

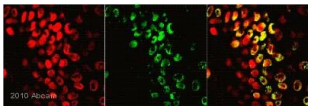


Image courtesy of an anonymous customer review

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p16INK4a antibody [2D9A12] (ab54210)

ab54210 staining CDKN2A/p16INK4a in human skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).
Tissue was fixed with formaldehyde and blocked with 2% BSA for 1 hour at 22°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/100 in 1% NGS/TBS) for 20 hours at 4°C. ab6785 (1/800) was used as the secondary antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.