## Overview

**Product name**  
Anti-CDKN2A/p16INK4a antibody [2D9A12]

**Description**  
Mouse monoclonal [2D9A12] to CDKN2A/p16INK4a

**Host species**  
Mouse

**Tested applications**  
**Suitable for:** Flow Cyt, ELISA, IHC-P  
**Unsuitable for:** WB

**Species reactivity**  
Reacts with: Mouse, Rat, Human

**Immunogen**  
Recombinant fragment corresponding to Human CDKN2A/p16INK4a.  
Database link: [P42771](https://www.uniprot.org/uniprot/P42771)

**Positive control**  
IHC-P: Human brain tumor, ovarian carcinoma, cervix, skin and brain tissue. Rat liver tissue. FC: HeLa cells.

## Properties

**Form**  
Liquid

**Storage instructions**  

**Storage buffer**  
Preservative: 0.03% Sodium azide  
Constituent: PBS

**Purity**  
Protein G purified

**Purification notes**  
Purified from tissue culture supernatant.

**Clonality**  
Monoclonal

**Clone number**  
2D9A12

**Isotype**  
IgG2b

## Applications

Our [Abpromise guarantee](https://www.abcam.com/abpromise) covers the use of ab54210 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Cellular localization

Cytoplasmic and Nuclear

Form

There are 4 isoforms produced by alternative splicing. Isoform 1 also known as: p16INK4a; Isoform 3 also known as: p12; Isoform 4 also known as: p14ARF; p19ARF; ARF.

Images

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

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.
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/1x10⁶ 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.

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.

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

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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