

Anti-CDKN2A/p16INK4A + CDKN2B/p15INK4B antibody [EP435Y-129R] - BSA and Azide free ab219723

Recombinant RabMAb

8 Images

Overview

Product name	Anti-CDKN2A/p16INK4A + CDKN2B/p15INK4B antibody [EP435Y-129R] - BSA and Azide free
Description	Rabbit monoclonal [EP435Y-129R] to CDKN2A/p16INK4A +CDKN2B/p15INK4B - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra), WB, IP Unsuitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293, HeLa ICC/IF: HeLa cells Flow Cyt (intra): HEK-293 cells. IP: HEK-293
General notes	ab219723 is the carrier-free version of ab81278 .

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP435Y-129R
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219723 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 17 kDa.
IP		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P.

Target

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.
Tissue specificity	Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific.
Involvement in disease	The association between cutaneous and uveal melanomas in some families suggests that mutations in CDKN2A may account for a proportion of uveal melanomas. However, CDKN2A mutations are rarely found in uveal melanoma patients. Melanoma, cutaneous malignant 2

Familial atypical multiple mole melanoma-pancreatic carcinoma syndrome
Melanoma-astrocytoma syndrome

Sequence similarities

Belongs to the CDKN2 cyclin-dependent kinase inhibitor family.
Contains 4 ANK repeats.

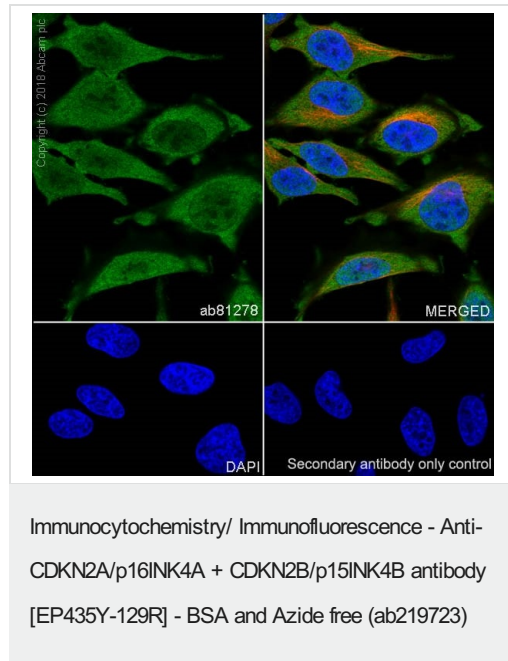
Post-translational modifications

Phosphorylation seems to increase interaction with CDK4.

Cellular localization

Cytoplasm. Nucleus.

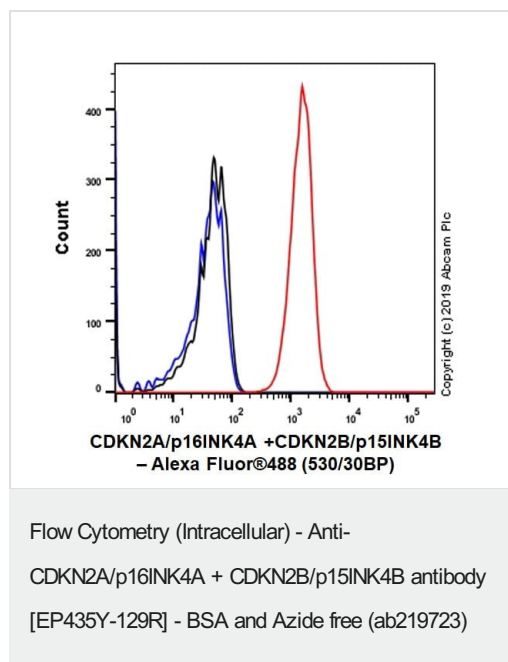
Images



Immunofluorescent analysis of 4% Paraformaldehyde fixed 0.1% Triton X-100 permeabilised HeLa (human cervix adenocarcinoma epithelial cell) labelling CDKN2A/p16INK4a with **ab81278** at 1/250 dilution, followed by AlexaFluor® 488 Goat anti-Rabbit secondary antibody (**ab150077**) at 1/1000 dilution (green). Confocal image showing cytoplasmic and nuclear staining in HeLa is observed. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) was used to counterstain alpha Tubulin at 1/200 dilution (red). The Nuclear counterstain was DAPI (blue).

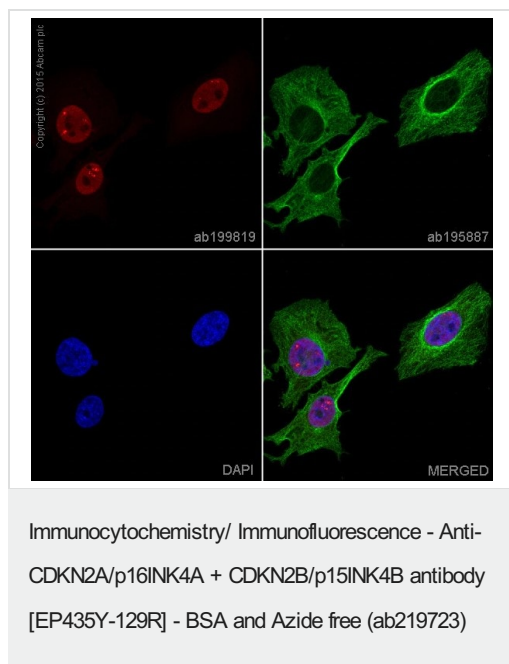
Secondary antibody only control: Secondary antibody is AlexaFluor® 488 Goat anti-Rabbit secondary antibody (**ab150077**) at 1/1000 dilution (green).

This data was developed using **ab81278**, the same antibody clone in a different buffer formulation.



Flow cytometric analysis of 4% paraformaldehyde fixed and 90% methanol permeabilised HEK-293 (Human embryonic kidney epithelial cell) with **ab81278** at 1/20 dilution (red) compared with a Rabbit monoclonal IgG (**ab172730**) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/2000 dilution was used as the secondary antibody.

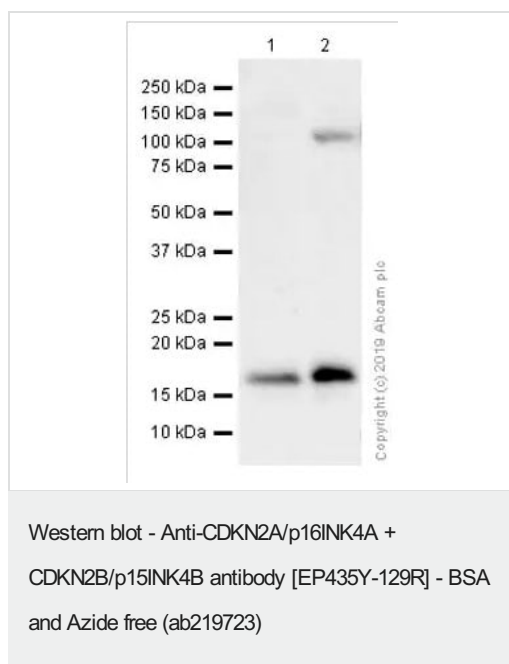
This data was developed using **ab81278**, the same antibody clone in a different buffer formulation.



Clone EP435Y-129R (ab219723) has been successfully conjugated by Abcam. This image was generated using Anti-CDKN2A/p16INK4A +CDKN2B/p15INK4B antibody [EP435Y-129R] (Alexa Fluor® 647). Please refer to [ab199819](#) for protocol details.

[ab199819](#) staining CDKN2A/p16INK4a in HeLa cells. The cells were fixed with 4% formaldehyde (10min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with [ab199819](#) at 1/200 dilution (shown in red) and [ab195887](#), Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 2µg/ml (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



All lanes : Anti-CDKN2A/p16INK4A + CDKN2B/p15INK4B antibody [EP435Y-129R] - BSA and Azide free (ab219723) at 1/10000 dilution

Lane 1 : HEK-293 cell lysate

Lane 2 : HeLa cell lysate

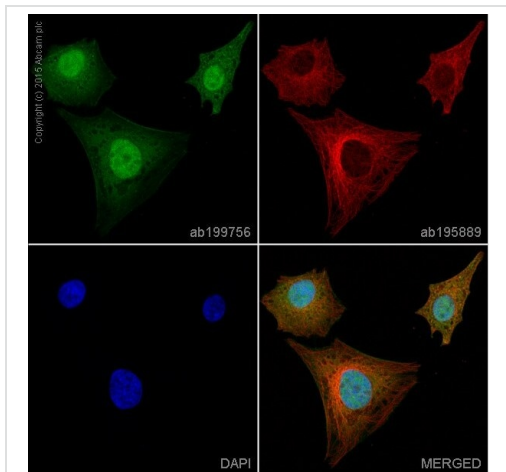
Lysates/proteins at 1/20 dilution per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/20000 dilution

Predicted band size: 17 kDa

Exposure time: 3 seconds

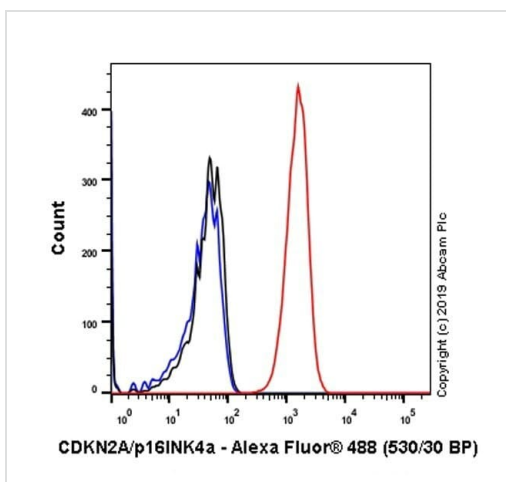


Immunocytochemistry/ Immunofluorescence - Anti-
CDKN2A/p16INK4A + CDKN2B/p15INK4B antibody
[EP435Y-129R] - BSA and Azide free (ab219723)

Clone EP435Y-129R (ab219723) has been successfully conjugated by Abcam. This image was generated using Anti-
CDKN2A/p16INK4a antibody [EP435Y-129R] (Alexa Fluor® 488).
Please refer to [ab199756](#) for protocol details.

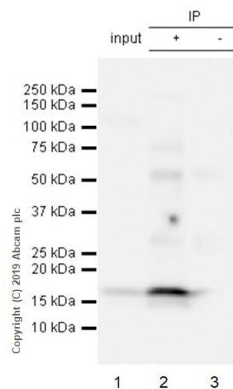
[ab199756](#) staining CDKN2A/p16INK4a in HeLa cells. The cells were fixed with 4% formaldehyde (10min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with [ab199756](#) at 1/100 dilution (shown in green) and [ab195889](#), Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 2µg/ml (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - Anti-
CDKN2A/p16INK4A + CDKN2B/p15INK4B antibody
[EP435Y-129R] - BSA and Azide free (ab219723)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HEK-293 (Human embryonic kidney epithelial cell) cells labelling CDKN2A with ab219723 at 1/100 dilution (1µg)/ Red compared with a Rabbit monoclonal IgG ([ab172730](#)) / Black isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



Immunoprecipitation - Anti-CDKN2A/p16INK4A +
CDKN2B/p15INK4B antibody [EP435Y-129R] - BSA
and Azide free (ab219723)

CDKN2A/p16INK4a was immunoprecipitated from 0.35 mg HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate 10µg with ab219723 at 1:50 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab219723 1:1000 dilution (2 µg/ml). VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used for detection at 1:1000 dilution.

Lane 1: HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate 10µg

Lane 2: ab219723 IP in HEK-293 whole cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab219723 in HEK-293 whole cell lysate.

Blocking and dilution buffer and concentration: 5%
NFDm/TBST.

Exposure time: 3 seconds

Why choose a
recombinant antibody?



**Research with
confidence**
Consistent and
reproducible results



**Long-term and
scalable supply**
Recombinant
technology



**Success from the
first experiment**
Confirmed
specificity



**Ethical standards
compliant**
Animal-free
production

Anti-CDKN2A/p16INK4A + CDKN2B/p15INK4B
antibody [EP435Y-129R] - BSA and Azide free
(ab219723)

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