abcam

ab211542

Anti-CDKN2A/p16INK4a antibody [EPR20418]

Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) is a rabbit monoclonal antibody detecting CDKN2A/p16INK4a in **Western Blot, Flow Cytometry (Intra), IP, ICC/IF**. Suitable for **Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 80 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR20418
Purification technique	Affinity purification Protein A
Specificity	Expression levels of the CDKN2A/p16INK4a protein may vary with sample type. It's barely expressed in normal tissue, and mostly expressed in some tumour tissues, such as cervical cancer, breast cancer and so on. Moreover, only expressed in some cell lines. Please see images for recommended positive controls. Please navigate to the Product Protocol section for specificity details in Chinese.
Concentration	0.528 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Rat, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Human, Rat
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	Conditional Ambient

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

Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IP, WB in mouse samples.

Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) has been cited over 83 times in peer reviewed journals and is trusted by the scientific community.

Abcams high quality manufacturing and validation processes ensure Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.

Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) has 8 independent reviews from customers.

Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) specifically detects CDKN2A/p16INK4a (UniProt ID: P51480; Molecular weight: 18kDa) and is sold in a convenient trial size to enable initial testing (20 uL) and larger sizes for subsequent scaling up experiments (100 uL and 1 mL).

Conjugation-ready, carrier free format available for antibody clone EPR20418 - ab23242.

CDKN2A, also known as p16INK4a, is a crucial tumor suppressor gene involved in cell cycle regulation and cancer development. It encodes the p16INK4a protein, which inhibits cyclin-dependent kinases (CDKs) 4 and 6, preventing the phosphorylation of the retinoblastoma protein (Rb) and halting cell cycle progression from the G1 to the S phase.

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

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.

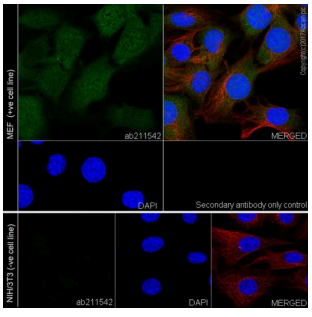
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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7 product images



Immunocytochemistry/ Immunofluorescence - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

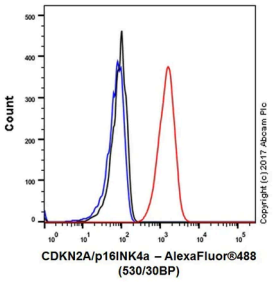
CDKN2A/p16INK4a Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CDKN2A/p16INK4a antibody

Immunofluorescent analysis of 100% methanol-fixed MEF (mouse embryonic fibroblast cell line) and NIH/3T3 (mouse embyro fibroblast cell line) cells labeling CDKN2A/p16INK4a with ab211542 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1,000 dilution (green). Confocal image showing nuclear and cytoplasmic staining on MEF cell line.
Negative control: NIH/3T3 (PMID: 15210712).

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1,000 dilution.

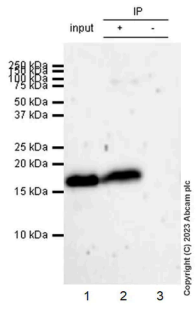
MEF cells were kindly provided by professor Pinlong Xu, Zhejiang University.



Flow Cytometry (Intracellular) - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

CDKN2A/p16INK4a Flow Cytometry (Intracellular) staining using rabbit Anti-CDKN2A/p16INK4a antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed MEF (mouse embryonic fibroblast cell line) cell line labeling CDKN2A/p16INK4awith ab211542 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
MEF cells were kindly provided by professor Pinlong Xu, Zhejiang University.



Immunoprecipitation - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

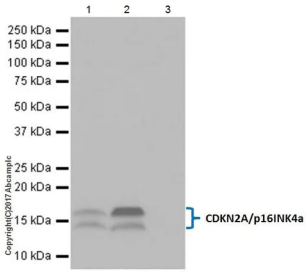
CDKN2A/p16INK4a was immunoprecipitated from fresh MEF lysates with ab211542 at 1/30 dilution (2ug in 0.35mg lysates). Lysates were made fresh and used immediately to minimize protein degradation. Western blot was performed on the immunoprecipitate using ab211542 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution. Lane 1: MEF (mouse embryo fibroblast) whole cell lysate 10 µg (IP lysis buffer) Lane 2: ab211542 in MEF (mouse embryo fibroblast) whole cell lysate (IP lysis buffer) Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab211542 in MEF whole cell lysate (IP lysis buffer) Blocking and dilution buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

All lanes:
MEF lysates

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 137s



Immunoprecipitation - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

CDKN2A/p16INK4a was immunoprecipitated from 0.35 mg of MEF (mouse embryonic fibroblast cell line) whole cell lysate with ab211542 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab211542 at 1/5000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution
Lane 1: MEF whole cell lysate 10 µg (Input).

Lane 2: ab211542 IP in MEF whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab211542 in MEF whole cell lysate.

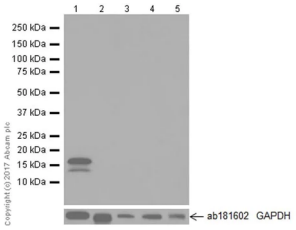
Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 30 seconds.

MEF cells were kindly provided by professor Pinlong Xu, Zhejiang University.

All lanes:
Immunoprecipitation - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

Predicted band size: 17 kDa



Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

Blocking/Dilution buffer: 5% NFDM/TBST.
Negative control: NIH/3T3 (PMID: 15210712).

Limited expression in mouse normal tissues has been documented in the literature (PMID: 9244355).

14 kDa band is a proteolytic p16INK4a lacking C-terminus (PMID: 18053084).

MEF cells are kindly provided by professor Pinlong Xu, Zhejiang University.

All lanes:
Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) at 1/2000 dilution

Lane 1:
MEF (mouse embryonic fibroblast cell line) whole cell lysate at 20 µg

Lane 2:
NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate at 20 µg

Lane 3:
Mouse lung lysate at 20 µg

Lane 4:
Mouse spleen lysate at 20 µg

Lane 5:
Mouse testis lysate at 20 µg

Secondary

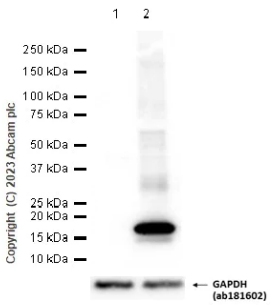
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 17 kDa

Observed band size: 14 kDa, 16 kDa

Exposure time: 3s



Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

CDKN2A/p16INK4a Western blot staining using rabbit Anti-CDKN2A/p16INK4a antibody

Blocking and dilution buffer: 5% NFDM/TBST.
ab181602 was used as loading control at 1/1000000 dilution.

All lanes:
Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) at 1/2000 dilution

Lane 1:
Mouse skin tissue lysate at 20 µg

Lane 2:
Mouse skin cancer tissue lysate at 20 µg

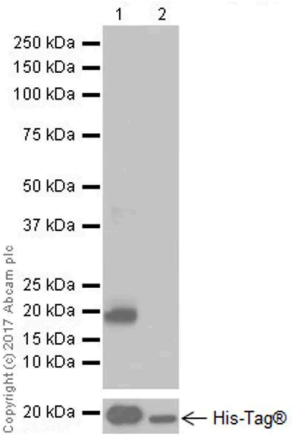
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 17 kDa

Observed band size: 14 kDa, 16 kDa

Exposure time: 10s



Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] (ab211542) at 1/1000 dilution

Lane 1:
His-tagged mouse CDKN2A/p16INK4a recombinant protein at 0.01 µg

Lane 2:
His-tagged mouse CDKN2B/p15INK4b recombinant protein at 0.01 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 17 kDa

Observed band size: 18 kDa

Exposure time: 1s

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