abcam

ab232402

Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free

Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402) is a rabbit recombinant monoclonal antibody provided in a PBS only buffer for easy conjugation. Suitable for **Western Blot, Flow Cytometry (Intra), IP, ICC/IF** in **Mouse**.

- BSA, sodium azide, and glycerol-free for easy conjugation
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
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.
Concentration	1.079 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Rat, Mouse

Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

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 conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

What is this antibody validated in?
Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunocytochemistry/immunofluorescence (ICC/IF) in Mouse samples.

What is the molecular weight of CDKN2A/p16INK4a?
Anti-CDKN2A/p16INK4a [EPR20418] - BSA and Azide free (ab232402) specifically detects a band for CDKN2A/p16INK4a (UniProt: P51480) at a molecular weight of 14kDa.

Other related products
We have a range of other formats of antibody clone [EPR20418] also available for your convenience: ab211542, Carrier free - ab232402

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

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

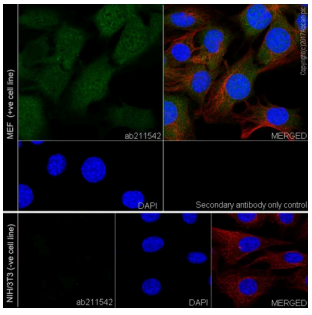
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images



Immunocytochemistry/ Immunofluorescence - Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402)

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

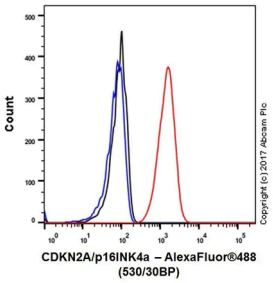
Immunofluorescent analysis of 100% methanol-fixed MEF (mouse embryonic fibroblast cell line) and NIH/3T3 (mouse embyro fibroblast cell line) cells labeling CDKN2A/p16INK4a with ab211542 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1,000 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab211542).

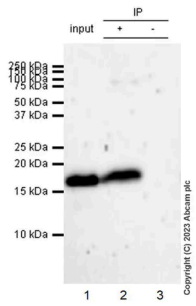


Flow Cytometry (Intracellular) - Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402)

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/p16INK4a with 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab211542).



Immunoprecipitation - Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402)

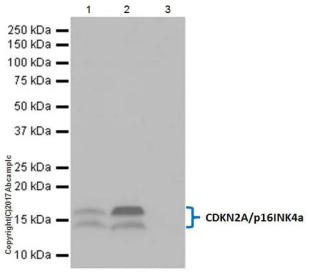
CDKN2A/p16INK4a was immunoprecipitated from fresh MEF lysates with ab211542 at 1/30 dilution (2ug in 0.35mg lysates). Lysates were made fresh and used immediately to minimize protein degradation. Western blot was performed on the immunoprecipitate using ab211542 at 1/1000 dilution. VeriBlot for IP secondary 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] - BSA and Azide free (ab232402)

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 1/10000 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.

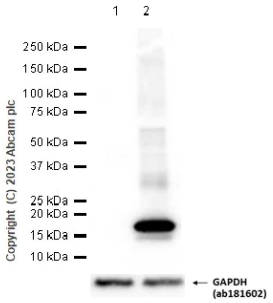
Exposure time: 30 seconds.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab211542).

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

Predicted band size: 17 kDa



Western blot - Anti-CDKN2A/p16INK4a antibody [EPR20418] - BSA and Azide free (ab232402)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab211542).

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

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