abcam

ab314539

Anti-A-Raf antibody [EPR25405-17]

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	EPR25405-17
Purification technique	Affinity purification Protein A
Concentration	0.535 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Transfected cell lysate - Mouse
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100

Notes	-

Expected

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

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, Transfected cell lysate - Mouse
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat, Transfected cell lysate - Mouse
Dilution info	-
Notes	-

Target data

See full target information Araf

Function	Involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May also regulate the TOR signaling cascade (By similarity). Phosphorylates PFKFB2 (By similarity).

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

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The A-Raf protein also called ARAF is a serine/threonine-protein kinase with a molecular mass of about 68 kDa. Scientists frequently refer to it with names like A-Raf or anti A-Raf when discussing its function. A-Raf is expressed in various tissues with higher levels found in the urogenital system and the central nervous system. This protein plays an important role in cellular signal transduction processes influencing cell proliferation and differentiation through phosphorylation activity.
Biological function summary	The A-Raf protein participates in the regulation of cell growth and survival. It forms part of the MAPK/ERK signaling cascade which is essential for transmitting mitogenic signals from the cell surface to the nucleus. A-Raf acts as a modulator within this complex impacting the overall signaling output. The protein is

	intimately involved in the regulation of the developmental processes influencing cell fate and function.
Pathways	The A-Raf protein is central to the MAPK/ERK pathway a critical signaling pathway involved in the regulation of cellular responses to growth signals. This pathway includes key components like the proteins B-Raf and C-Raf with A-Raf playing specific roles in the modulation and fine-tuning of this signal transmission. It helps mediate signals that control cell division differentiation and secretion ensuring appropriate cellular responses to external stimuli.
Associated diseases and disorders	Aberrations in A-Raf functions have been linked to cancers particularly urogenital cancers due to its role in uncontrolled cell proliferation. Faulty A-Raf activity can also contribute to neurological disorders because of its expression in the central nervous system and involvement in neuronal signaling pathways. In these contexts it can interact with proteins like B-Raf which are important for maintaining normal cellular signaling and preventing tumorigenesis and neurodegenerative disorders.

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

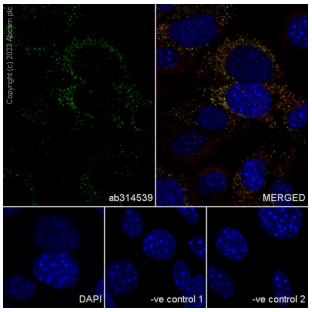
We do not recommend this combination. It is not covered by our product promise.

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.

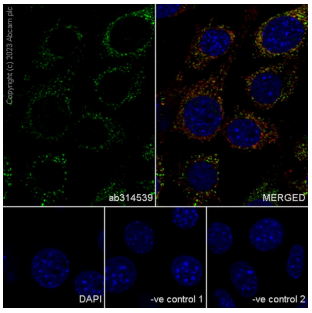
Full details and terms and conditions can be found here:
Terms & Conditions.

8 product images



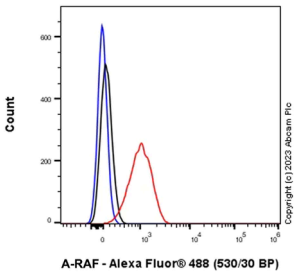
Immunocytochemistry/ Immunofluorescence - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized MEF (mouse embryo fibroblast) cells labelling A-Raf with ab314539 at 1/100 (5.35 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1006 (2ug/ml) dilution (Green). Confocal image showing mitochondrial staining in MEF cells. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Anti-COX IV mouse monoclonal antibody - Mitochondrial Marker was used to counterstain at 1/200 (2.5ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1006 (2ug/ml) dilution.



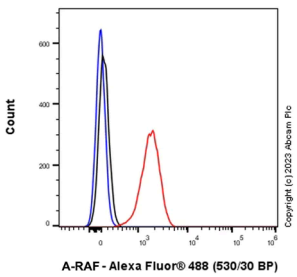
Immunocytochemistry/ Immunofluorescence - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling A-Raf with ab314539 at 1/100 (5.35 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1007 (2ug/ml) dilution (Green). Confocal image showing mitochondrial staining in NIH/3T3 cells. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Anti-COX IV mouse monoclonal antibody - Mitochondrial Marker was used to counterstain at 1/200 (2.5ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1007 (2ug/ml) dilution.



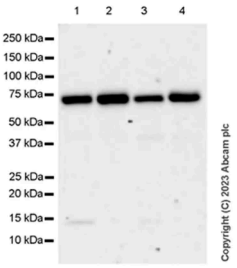
Flow Cytometry (Intracellular) - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling A-Raf with ab314539 at 1/50 dilution (1 ug, 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, ab150081) at 1/5000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized MEF (mouse embryo fibroblast) cells labelling A-Raf with ab314539 at 1/50 dilution (1 ug, 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, ab150081) at 1/5000 dilution was used as the secondary antibody.



Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Lysates were freshly made and used for Western blotting immediately to minimize protein degradation.
All lanes:
Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539) at 1/1000 dilution

Lane 1:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

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

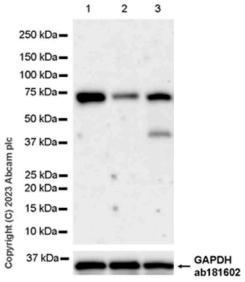
Lane 4:
PC-12 (rat adrenal gland pheochromocytoma cell) whole cell lysate at 20 µg

Secondary

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

Observed band size: 68 kDa

Exposure time: 92s



Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The identity of the lower MW band at approximately 42 kDa (in lane 3) is unknown. In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539) at 1/1000 dilution

Lane 1:
NIH/3T3 (mouse embryonic fibroblast) transfected with scrambled siRNA control whole cell lysate at 20 µg

Lane 2:
NIH/3T3 transfected with siRNA specifically targeti A-Raf whole cell lysate at 20 µg

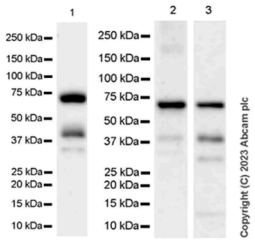
Lane 3:
MEF (mouse embryo fibroblast) whole cell lysate at 20 µg

Secondary

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

Observed band size: 68 kDa

Exposure time: 180s



Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The identity of the bands between 10 kDa and 68 kDa are unknown. Exposure time: Lane 1: 26 seconds; Lanes 2-3: 180 seconds.
All lanes:
Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539) at 1/1000 dilution

Lane 1:
Mouse epididymis tissue lysate at 20 µg

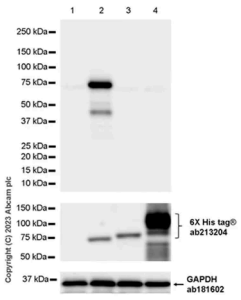
Lane 2:
Mouse prostate tissue lysate at 20 µg

Lane 3:
C2C12 (mouse myoblast) whole cell lysate at 20 µg

Secondary

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

Observed band size: 68 kDa



Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539)

Blocking and diluting buffer and concentration: 5% NFDM/TBST This antibody does not cross-react with mouse B-Raf and c-Raf. In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution. In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.
All lanes:
Western blot - Anti-A-Raf antibody [EPR25405-17] (ab314539) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a His-tag, whole cell lysate at 5 µg

Lane 2:
293T cells transfected with a mouse A-Raf expression vector containing a His-tag, whole cell lysate at 5 µg

Lane 3:
293T cells transfected with a mouse c-Raf expression vector containing a His-tag, whole cell lysate at 5 µg

Lane 4:
293T cells transfected with a mouse B-Raf expression vector containing a His-tag, whole cell lysate at 5 µg

Secondary

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

Observed band size: 68 kDa

Exposure time: 3s

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