abcam

ab198500

Anti-PPP2R5E antibody [EPR17147] - C-terminal

Recombinant | RabMAb | KO Validated

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	EPR17147
Purification technique	Affinity purification Protein A
Concentration	1.05 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/75
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/5000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/2500
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit epsilon isoform

Function	The B regulatory subunit might modulate substrate selectivity and catalytic activity, and might also direct the localization of the catalytic enzyme to a particular subcellular compartment.

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 protein PPP2R5E also known as B56 epsilon is a regulatory subunit of protein phosphatase 2A (PP2A). It has an approximate mass of 72 kDa. PPP2R5E expresses across various tissues including the brain heart and skeletal muscle. The subunit associates with the core PP2A enzyme influencing substrate specificity and activity of PP2A holoenzyme.
Biological function summary	PPP2R5E plays a role in regulating cell growth and division. It is a part of the PP2A holoenzyme complex acting as a critical modulatory component. By associating with the PP2A core enzyme PPP2R5E contributes to the dephosphorylation process of many substrates. These substrates are vital for maintaining cellular functions such as signal transduction and cell cycle progression.
Pathways	PPP2R5E takes part in cell signaling and apoptotic pathways. It has substantial involvement in the MAPK signaling pathway where it modulates the activity of related kinases. PPP2R5E interacts with proteins like RAF1 influencing the pathway's function. Additionally it also participates in the Wnt signaling pathway where its regulatory role impacts cellular differentiation and proliferation.

Associated diseases and disorders	PPP2R5E shows links to cancer and neurodegenerative diseases. Alterations in its expression or function may lead to oncogenesis due to its role in controlling cell proliferation signals. The dysregulation of PP2A activity potentially through PPP2R5E has associations with Alzheimer's disease. In cancer PPP2R5E interacts with proteins such as c-Myc which contributes to tumorigenesis and progression.

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

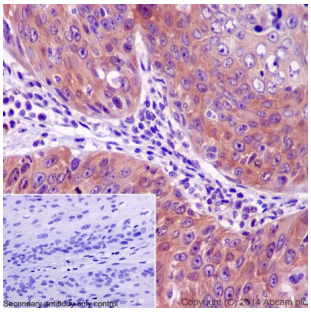
We do not recommend this combination. It is not covered by our product promise.

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.

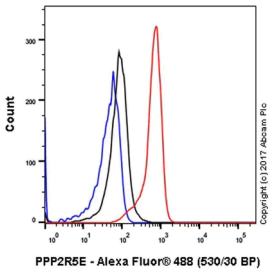
8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling PPP2R5E with ab198500 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on Human cervix carcinoma tissue isobserved. Counter-stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

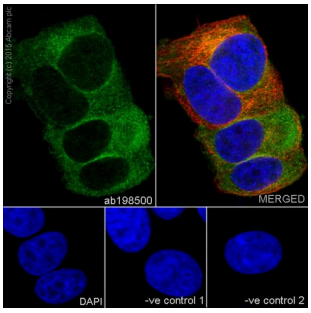
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

PPP2R5E Flow Cytometry (Intracellular) staining using rabbit Anti-PPP2R5E antibody

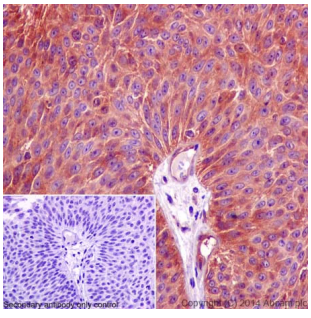
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling PPP2R5E (red) with purified ab198500 at a 1/2500 dilution (1ug/mL). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti rabbit IgG (Alexa Fluorr® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) (ab172730). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

PPP2R5E Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPP2R5E antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF-7 (Human breast carcinoma) cells labeling PPP2R5E with ab198500 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on MCF7 cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows;
1. ab198500 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

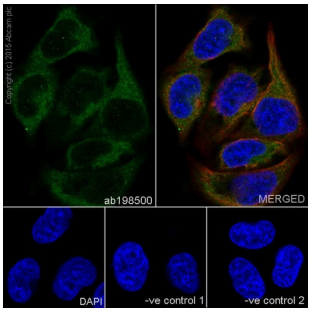


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

PPP2R5E Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PPP2R5E antibody

Immunohistochemical analysis of paraffin-embedded Human transitional cell carcinoma of bladder tissue labeling PPP2R5E with ab198500 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on Human transitional cell carcinoma of bladder tissue isobserved. Counter-stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

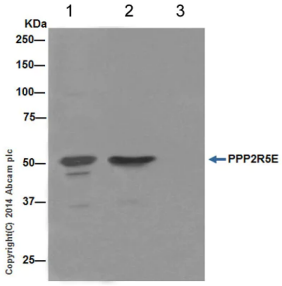
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

PPP2R5E Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPP2R5E antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human cervix adenocarcinoma) cells labeling PPP2R5E with ab198500 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on HeLa cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows;
1. ab198500 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Immunoprecipitation - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

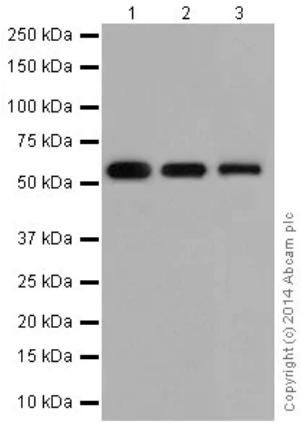
PPP2R5E was immunoprecipitated from 1mg of HeLa (Human cervix adenocarcinoma) whole cell extract with ab198500 at 1/175 dilution. Western blot was performed from the immunoprecipitate using ab198500 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.
Lane 1: HeLa whole cell extract 10µg (Input).

Lane 2: HeLa whole cell extract

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab198500 in HeLa whole cell extract.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

Predicted band size: 55 kDa



Western blot - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500) at 1/5000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
293 cell lysate at 10 µg

Lane 3:
Human skeletal muscle lysate at 20 µg

Secondary

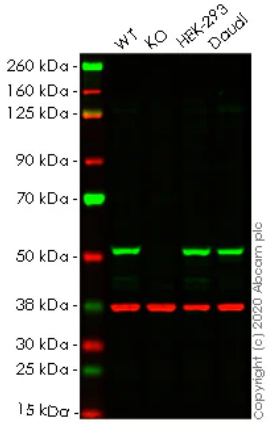
All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 55 kDa

Observed band size: 55 kDa

Exposure time: 3min



Western blot - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500)

PPP2R5E Western blot staining using rabbit Anti-PPP2R5E antibody

Lanes 1-4: Merged signal (red and green). Green - ab198500 observed at 55 kDa. Red - loading control ab8245 observed at 37 kDa.
ab198500 Recombinant Anti-PPP2R5E antibody [EPR17147] - C-terminal was shown to specifically react with PPP2R5E in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265637 (knockout cell lysate ab258135) was used. Wild-type and PPP2R5E knockout samples were subjected to SDS-PAGE. ab198500 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 5000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-PPP2R5E antibody [EPR17147] - C-terminal (ab198500) at 1/5000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human PPP2R5E knockout HeLa cell lysate (ab258135) at 20 µg

Lane 3:
HEK-293T cell lysate at 20 µg

Lane 4:
Daudi cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 55 kDa

Observed band size: 55 kDa

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