

Product datasheet

Anti-PPP1CB antibody [EP1804Y] ab53315

RabMAb[®]

★★★★★ 2 Abreviews 19 References 13 Images

Overview

Product name	Anti-PPP1CB antibody [EP1804Y]
Description	Rabbit monoclonal [EP1804Y] to PPP1CB
Host species	Rabbit
Tested applications	Suitable for: WB, IP, Flow Cyt, IHC-P, ICC, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human PPP1CB aa 300 to the C-terminus.
Positive control	Jurkat whole cell lysate (ab7899) Human muscle tissue
General notes	<p>This product was previously labelled as Protein Phosphatase 1 beta, PPP1CA + 1CB.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1804Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab53315** 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
WB	★★★★★	1/50000. Detects a band of approximately 37 kDa (predicted molecular weight: 37 kDa). For unpurified use at 1/10000 - 1/20000.
IP		1/100.
Flow Cyt		1/20 - 1/50. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		1/400. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. For unpurified use at 1/250. See IHC antigen retrieval protocols .
ICC		Use at an assay dependent concentration.
ICC/IF		1/250.

Target

Function

Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Protein phosphatase (PP1) is essential for cell division, it participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. Component of the PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase. In balance with CSNK1D and CSNK1E, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. May dephosphorylate CSNK1D and CSNK1E. Dephosphorylates the 'Ser-418' residue of FOXP3 in regulatory T-cells (Treg) from patients with rheumatoid arthritis, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208).

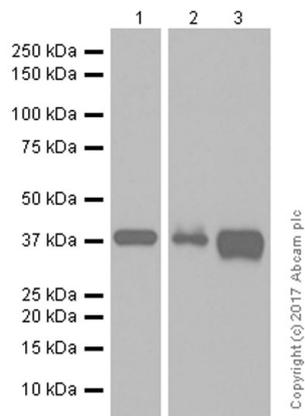
Sequence similarities

Belongs to the PPP phosphatase family. PP-1 subfamily.

Cellular localization

Cytoplasm. Nucleus. Nucleus, nucleoplasm. Nucleus, nucleolus. Highly mobile in cells and can be relocalized through interaction with targeting subunits. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles.

Images



Western blot - Anti-PPP1CB antibody [EP1804Y] (ab53315)

All lanes : Anti-PPP1CB antibody [EP1804Y] (ab53315) at 1/50000 dilution (purified)

Lane 1 : Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates

Lane 2 : Mouse brain lysates

Lane 3 : Rat brain lysates

Lysates/proteins at 20 µg per lane.

Secondary

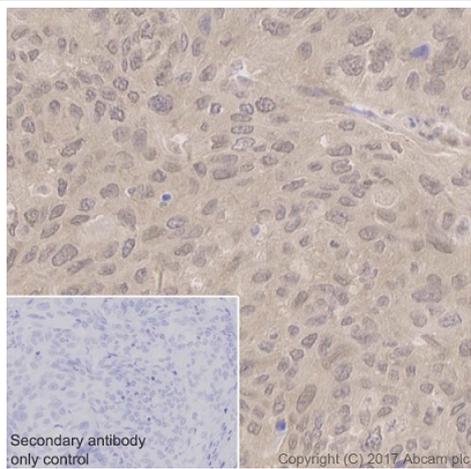
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 37 kDa

Observed band size: 38 kDa

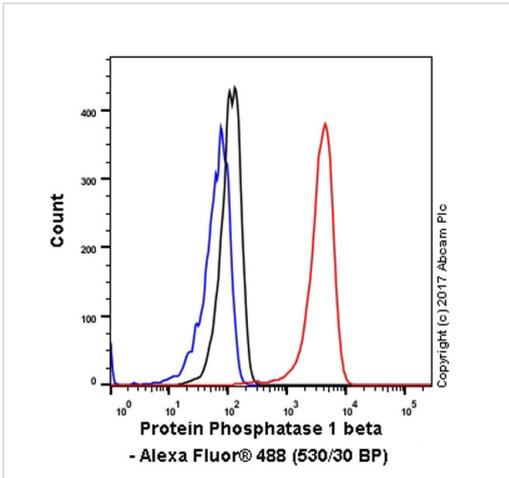
[why is the actual band size different from the predicted?](#)

Blocking and diluting buffer: 5% NFDm/TBST



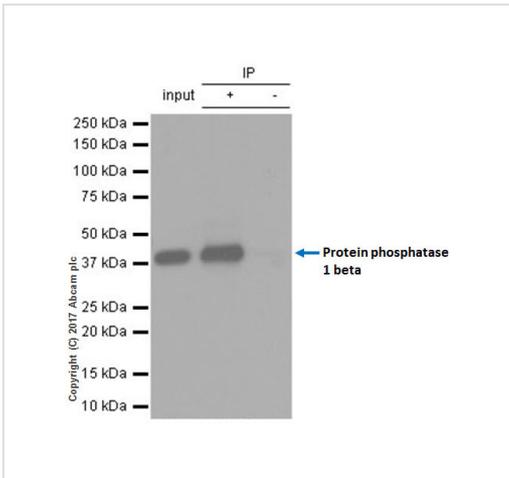
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cervical carcinoma tissue sections labeling Protein phosphatase 1 beta with purified ab53315 at 1:400 dilution (1 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Flow Cytometry - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Protein phosphatase 1 beta with purified ab53315 at 1:40 dilution (10 ug/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1:2000 dilution. Isotype control - 90% methanol. Unlabeled control - Rabbit monoclonal IgG (Black). Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-PPP1CB antibody [EP1804Y] (ab53315)

ab53315 (purified) at 1:100 dilution (2ug) immunoprecipitating Protein phosphatase 1 beta in Human fetal brain lysate.

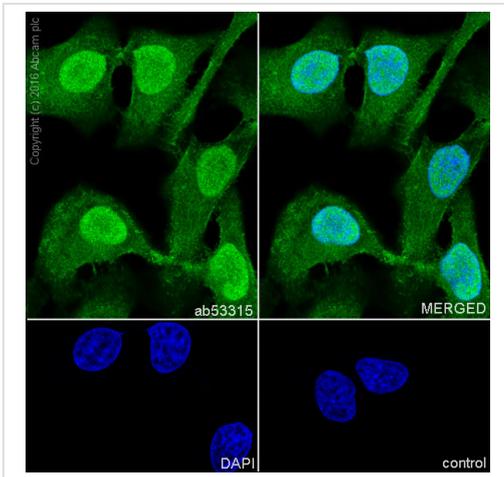
Lane 1 (input): Human fetal brain lysate 10ug

Lane 2 (+): ab53315 & Human fetal brain lysate

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab53315 in Human fetal brain lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.

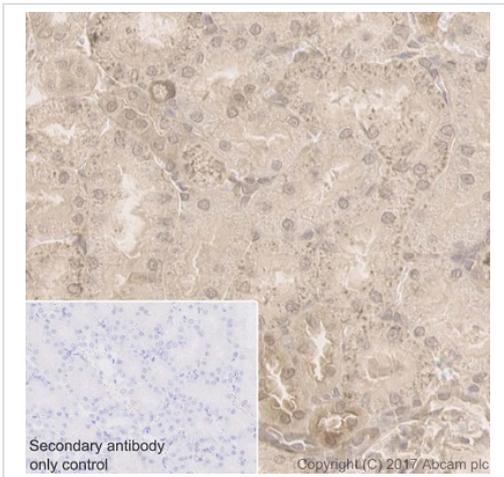
Blocking and diluting buffer: 5% NFDm/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-PPP1CB antibody [EP1804Y] (ab53315)

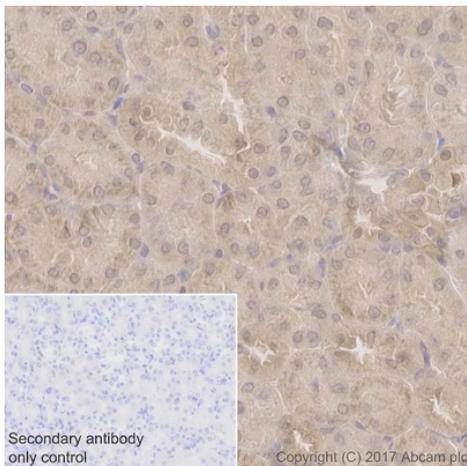
Unpurified ab53315 staining Protein Phosphatase 1 beta antibody in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000.

DAPI was used as a nuclear counterstain and the negative control was PBS only.



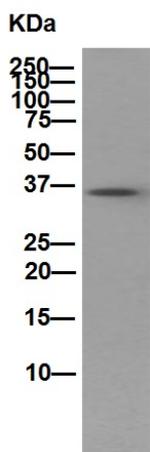
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat kidney tissue sections labeling Protein phosphatase 1 beta with purified ab53315 at 1:400 dilution (1 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse kidney tissue sections labeling Protein phosphatase 1 beta with purified ab53315 at 1:400 dilution (1 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



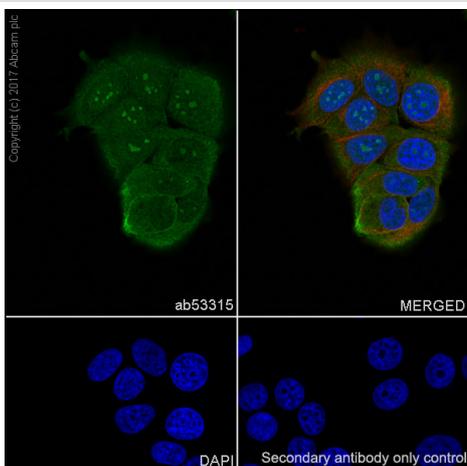
Western blot - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Anti-PPP1CB antibody [EP1804Y] (ab53315) at 1/20000 dilution (unpurified) + Jurkat cells at 20 µg

Secondary

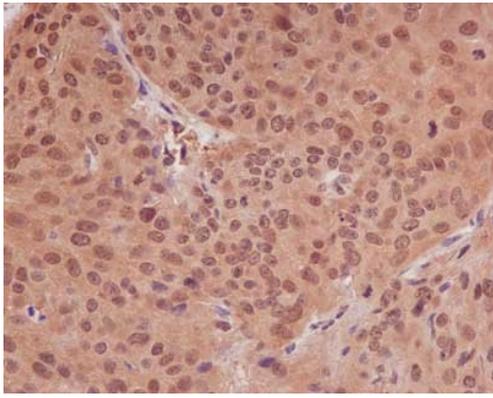
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/1000 dilution

Predicted band size: 37 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PPP1CB antibody [EP1804Y] (ab53315)

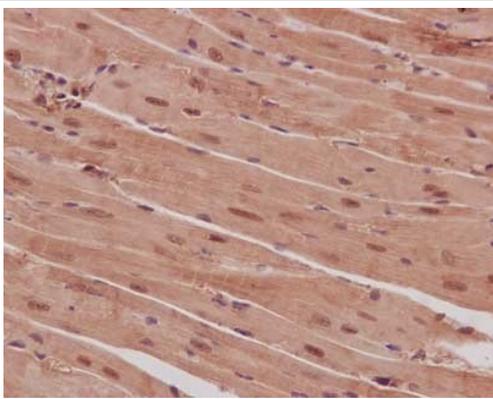
Immunocytochemistry/ Immunofluorescence analysis of MCF-7 (Human breast adenocarcinoma epithelial cell) cells labeling Protein phosphatase 1 beta with Purified ab53315 at 1:250 dilution (1.6µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). ab150077 Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemical analysis of paraffin-embedded sections of human cervix carcinoma labelling Protein Phosphatase 1 beta with unpurified ab53315 at 1:250 dilution. Prediluted ImmunoHistoprobe (ready to use) HRP Polymer for Rabbit IgG was used as a secondary antibody.

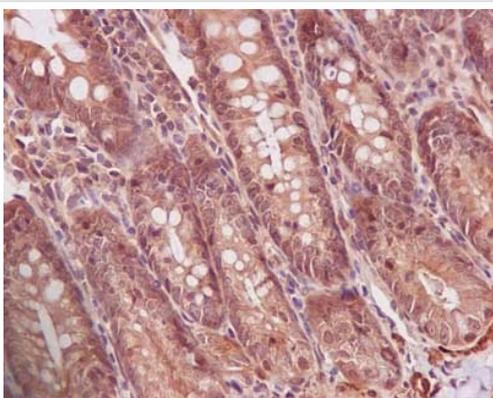
Counter stain = Hematoxylin. Heat mediated antigen retrieval using EDTA buffer at pH 9 was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemical analysis of paraffin-embedded sections of mouse cardiac muscle labelling Protein Phosphatase 1 beta with unpurified ab53315 at 1:250 dilution. Prediluted ImmunoHistoprobe (ready to use) HRP Polymer for Rabbit IgG was used as a secondary antibody.

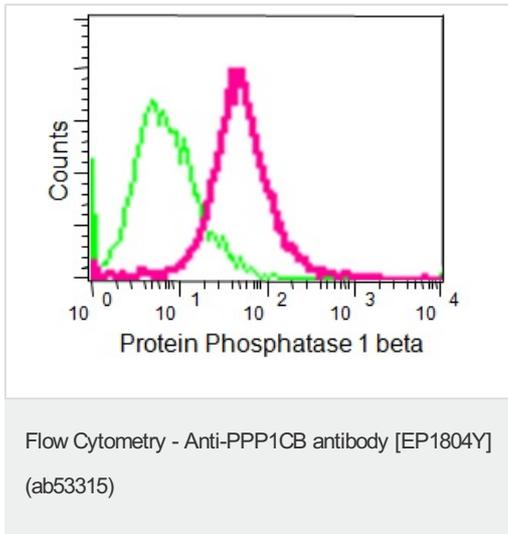
Counter stain = Hematoxylin. Heat mediated antigen retrieval using EDTA buffer at pH 9 was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PPP1CB antibody [EP1804Y] (ab53315)

Immunohistochemical analysis of paraffin-embedded sections of rat colon labelling Protein Phosphatase 1 beta with unpurified ab53315 at 1:250 dilution. Prediluted ImmunoHistoprobe (ready to use) HRP Polymer for Rabbit IgG was used as a secondary antibody.

Counter stain = Hematoxylin. Heat mediated antigen retrieval using EDTA buffer at pH 9 was performed.



Flow Cytometry analysis of HeLa cells labelling Protein Phosphatase 1 beta with unpurified ab53315 at 1:20 dilution. Goat anti rabbit IgG (H&L) (FITC) at a dilution of 1:150 used as the secondary antibody. Isotype control = Rabbit monoclonal IgG. Fixative=2% paraformaldehyde.

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