

Product datasheet

Anti-PP2A alpha + beta antibody ab137849

★★★★★ 1 Abreviews 1 References 4 Images

Overview

Product name	Anti-PP2A alpha + beta antibody
Description	Rabbit polyclonal to PP2A alpha + beta
Host species	Rabbit
Specificity	ab137849 does cross react with PP2A beta
Tested applications	Suitable for: WB, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Rabbit, Chicken, Cow, Dog, Pig, Xenopus laevis, Zebrafish, Xenopus tropicalis 
Immunogen	Synthetic peptide corresponding to Human PP2A-alpha aa 247-259.
Positive control	293T, A431, H1299, HeLaS3, Molt4, Raji and mouse brain lysates; HeLa cell; A549 xenograft
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 89.99% PBS, 10% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab137849 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		1/1000 - 1/10000. Predicted molecular weight: 35 kDa.
ICC/IF	★★★★★ (1)	1/100 - 1/1000.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Alternatively Tris-EDTA buffer (pH8.0) may be used.

Target

Function

PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Cooperates with SGOL2 to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I (By similarity). Can dephosphorylate SV40 large T antigen and p53/TP53. Dephosphorylates SV40 large T antigen, preferentially on serine residues 120, 123, 677, and perhaps 679. The C subunit was most active, followed by the AC form, which was more active than the ABC form, and activity of all three forms was strongly stimulated by manganese, and to a lesser extent by magnesium. Dephosphorylation by the AC form, but not C or ABC form is inhibited by small T antigen. Activates RAF1 by dephosphorylating it at 'Ser-259'.

Sequence similarities

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

Post-translational modifications

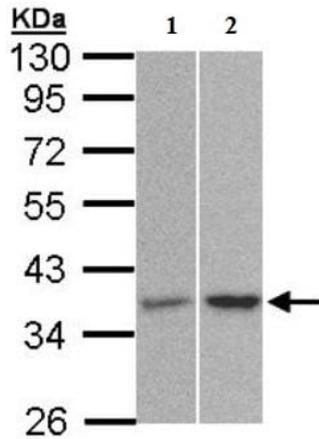
Reversibly methyl esterified on Leu-309. Carboxyl methylation may play a role in holoenzyme assembly, enhancing the affinity of the PP2A core enzyme for some, but not all, regulatory subunits. It varies during the cell cycle.

Phosphorylation of either threonine (by autophosphorylation-activated protein kinase) or tyrosine results in inactivation of the phosphatase. Auto-dephosphorylation has been suggested as a mechanism for reactivation.

Cellular localization

Cytoplasm. Nucleus. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle pole. In prometaphase cells, but not in anaphase cells, localizes at centromeres. During mitosis, also found at spindle poles. Centromeric localization requires the presence of SGOL2.

Images



Western blot - Anti-PP2A alpha + beta antibody (ab137849)

All lanes : Anti-PP2A alpha + beta antibody (ab137849) at 1/1500 dilution

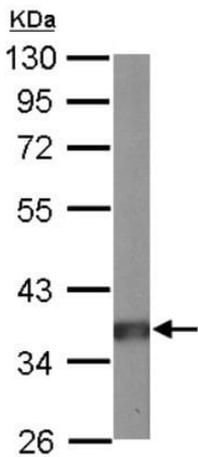
Lane 1 : 293T whole cell lysate

Lane 2 : Molt4 whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 35 kDa

10% SDS PAGE

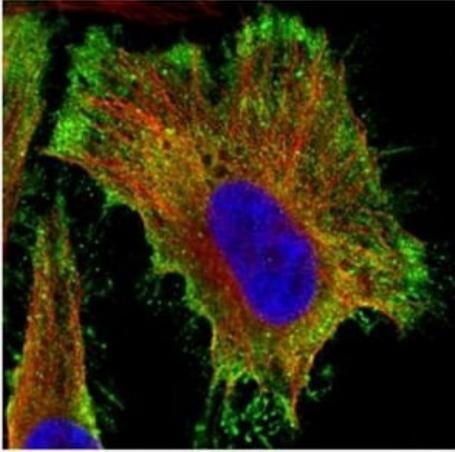


Western blot - Anti-PP2A alpha + beta antibody (ab137849)

Anti-PP2A alpha + beta antibody (ab137849) at 1/10000 dilution + mouse brain whole cell lysate at 50 µg

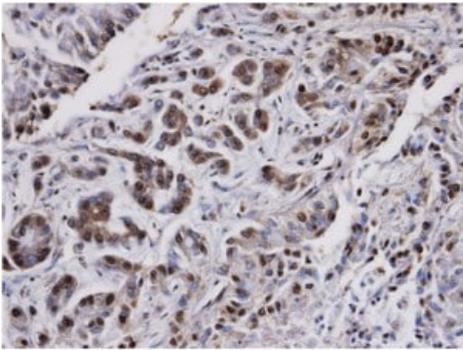
Predicted band size: 35 kDa

10% SDS PAGE



Immunocytochemistry/ Immunofluorescence - Anti-PP2A alpha + beta antibody (ab137849)

Confocal immunofluorescence analysis of paraformaldehyde fixed HeLa cell labeling PP2A alpha with ab137849 (green) at a 1/500 dilution. Alpha tubulin filaments were labeled with an Alpha tubulin antibody (red) at a 1/2000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PP2A alpha + beta antibody (ab137849)

Immunohistochemical analysis of paraffin embedded A549 xenograft, labeling PP2A alpha using ab137849 at a 1/100 dilution.

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