


Product datasheet

Anti-PP2A alpha + beta antibody [Y119] ab32141

Recombinant RabMAb

★★★★☆ 5 Abreviews 31 References 4 Images

Overview

Product name	Anti-PP2A alpha + beta antibody [Y119]
Description	Rabbit monoclonal [Y119] to PP2A alpha + beta
Host species	Rabbit
Specificity	This antibody detects both alpha and beta isoforms of PP2A.
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Epitope	ab32141 reacts with an epitope located in the C terminal region of PP2A alpha and beta
Positive control	T47-D cell lysate and human breast carcinoma
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</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>

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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	Y119
Isotype	IgG

Applications

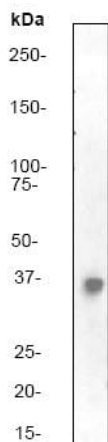
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab32141 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (3)	1/5000 - 1/10000. Detects a band of approximately 36 kDa (predicted molecular weight: 35 kDa).
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/20.

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

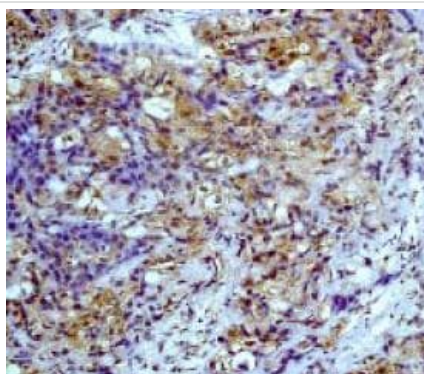


Western blot - Anti-PP2A alpha + beta antibody [Y119] (ab32141)

Anti-PP2A alpha + beta antibody [Y119] (ab32141) at 1/10000 dilution + T47-D cell lysate

Predicted band size: 35 kDa

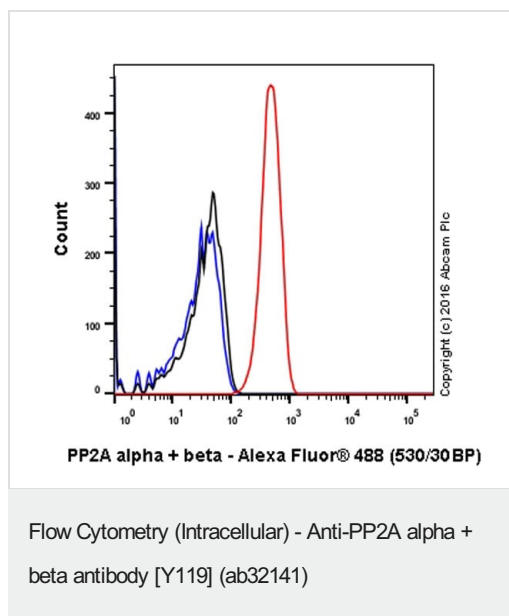
Observed band size: 36 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PP2A alpha + beta antibody [Y119] (ab32141)





ab32141, at a 1/250 dilution, staining human breast carcinoma by immunohistochemistry, Paraffin embedded tissue

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labelling PP2A alpha + beta (red) with unpurified ab32141 at dilution of 1/20. Goat anti rabbit IgG (Alexa Fluor®488) at 1/2000 was used as the secondary antibody. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary and secondary antibodies.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-PP2A alpha + beta antibody [Y119] (ab32141)

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