## abcam

## Product datasheet

# Alexa Fluor® 488 Anti-PP2A alpha + beta antibody [Yl19] ab203957 

Recombinant RabMAb

## 2 Images

## Overview

## Product name

Description
Host species
Conjugation
Tested applications
Species reactivity

Immunogen

Epitope
Positive control
General notes

Alexa Fluor® 488 Anti-PP2A alpha + beta antibody [Y119]
Alexa Fluor® 488 Rabbit monoclonal [Y119] to PP2A alpha + beta
Rabbit
Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Suitable for: ICC/IF
Reacts with: Human
Predicted to work with: Mouse, Rat
Synthetic peptide within Human PP2A alpha + beta (C terminal). The exact sequence is proprietary.
ab203957 reacts with an epitope located in the C terminal region of PP2A alpha and beta ICC/IF: HeLa cells.

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 production

For more information see here.
Our RabMAb ${ }^{\circledR}$ technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb $^{\circledR}$ patents.

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| Properties |  |
| :--- | :--- |
| Form | Liquid |
| Storage instructions | Shipped at $4^{\circ} \mathrm{C}$. Store at $+4^{\circ} \mathrm{C}$ short term (1-2 weeks). Upon delivery aliquot. Store at $-20^{\circ} \mathrm{C}$. <br>  <br> Stable for 12 months at $-20^{\circ} \mathrm{C}$. Store In the Dark. <br> Storage buffer <br>  <br> $\mathrm{pH}: 7.40$ <br>  <br>  <br> Preservative: $0.02 \%$ Sodium azide <br> Constituents: $30 \%$ Glycerol (glycerin, glycerine), 1\% BSA, PBS <br> Purity <br> Clonality <br> Clone number |
| Protein A purified |  |
| Isotype | Monoclonal |
|  | Y119 |
|  | IgG |

## Applications

The Abpromise guarantee
Our Abpromise guarantee covers the use of ab203957 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 |
| :--- | :--- | :--- |
| ICC/IF |  | $1 / 100$. <br> This product gave a positive signal in HeLa cells fixed with $4 \%$ <br> formaldehyde (10 min). |

## Target

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

## 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


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-PP2A alpha + beta antibody [Y119] (ab203957)
ab203957 staining PP2A alpha + beta in HeLa cells. The cells were fixed with 4\% formaldehyde ( 10 min ), permeabilized with $0.1 \%$ Triton X-100 for 5 minutes and then blocked with 1\% BSA/10\% normal goat serum/0.3M glycine in $0.1 \%$ PBS-Tween for 1 h . The cells were then incubated overnight at $+4^{\circ} \mathrm{C}$ with ab203957 at $1 / 100$ dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor ${ }^{\text {® }} 594$ ), at $1 / 250$ dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).


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