

## Product datasheet

# Anti-PP2A alpha + beta antibody ab59255

[2 Images](#)

### Overview

<b>Product name</b>	Anti-PP2A alpha + beta antibody
<b>Description</b>	Rabbit polyclonal to PP2A alpha + beta
<b>Specificity</b>	Detects endogenous levels of total PP2A alpha protein.
<b>Tested applications</b>	<b>Suitable for:</b> ELISA, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide corresponding to Human PP2A-alpha.
<b>Positive control</b>	Human lung carcinoma. A549 cells.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), 150mM Sodium chloride, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab59255** 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
ELISA		1/5000.
WB		1/500 - 1/1000. Detects a band of approximately 35 kDa (predicted molecular weight: 35 kDa).
IHC-P		Use at an assay dependent concentration.

## 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

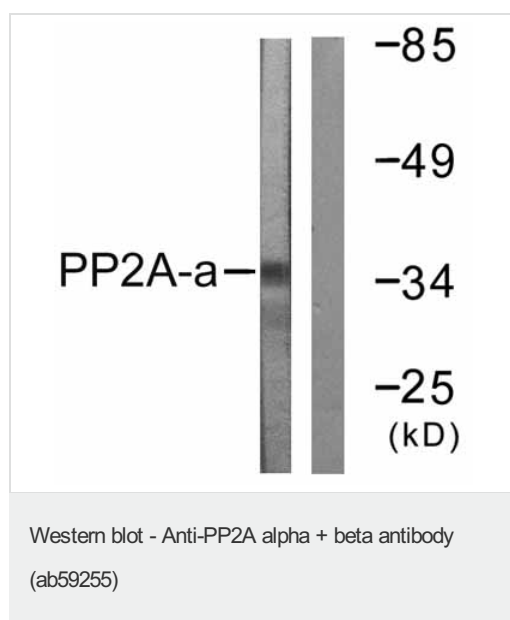
Reversibly methyl esterified on Leu-309. Carboxyl methylation may play a role in holoenzyme assembly, enhancing the affinity of the PP2A core enzyme for some, but not all, regulatory subunits. It varies during the cell cycle.

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



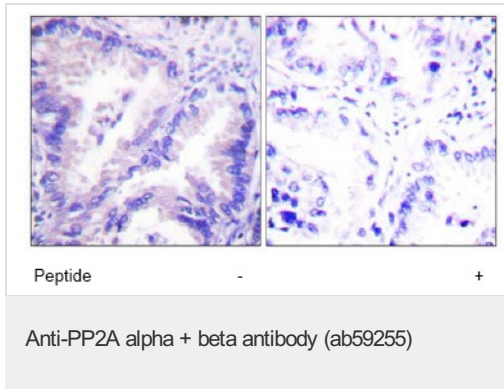
**All lanes** : Anti-PP2A alpha + beta antibody (ab59255) at 1/500 dilution

**Lane 1** : A549 cell extracts

**Lane 2** : A549 cell extracts with immunizing non-phosphopeptide

**Predicted band size** : 35 kDa

**Observed band size** : 35 kDa



ab59255 at 1/50 dilution staining PP2A alpha in human lung carcinoma by Immunohistochemistry, Paraffin embedded tissue, in the absence or presence of the immunising peptide.ab59255 at 1/50 dilution staining PP2A alpha in human lung carcinoma by Immunohistochemistry, Paraffin embedded tissue, in the absence or presence of the immunising peptide.

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