


## Product datasheet

# Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free ab226007

Recombinant RabMAB

18 References 5 Images

### Overview

<b>Product name</b>	Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [E155] to PP2A alpha + beta - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen sequence for <a href="#">ab32104</a> has 100% homology with the PP2A-beta protein.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P, WB, ICC/IF, Dot blot
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Zebrafish 
<b>Immunogen</b>	Synthetic peptide within Human PP2A alpha + beta aa 250-350. The exact sequence is proprietary.
<b>Positive control</b>	IHC-P: Human pancreas tissue. WB: lysate of A431 cells (serum starved overnight) treated with EGF (100ng/ml) for 5-10 minutes at 37C (BD Biosciences).
<b>General notes</b>	<p>ab226007 is the carrier-free version of <a href="#">ab32104</a>. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our <a href="#">carrier-free formats</a> are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>Use our <a href="#">conjugation kits</a> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>ab226007 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.</p> <p><i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB® patents</a>.</p>

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.20 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	E155
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab226007** 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
Flow Cyt		Use at an assay dependent concentration. <a href="#">ab199376</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		Use at an assay dependent concentration. Perform antigen retrieval with the Dako 3 in 1 AR buffer citrate pH6.
WB		Use at an assay dependent concentration. Predicted molecular weight: 35 kDa.

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Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.

## Target

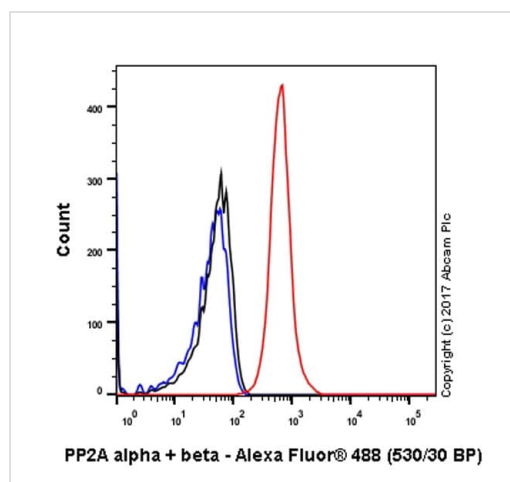
**Function** PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Cooperates with SGOL2 to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I (By similarity). Can dephosphorylate SV40 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.

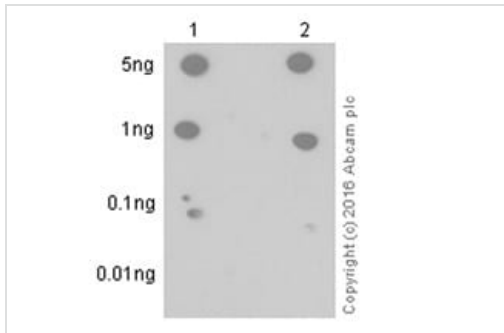
## Images



Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling PP2A alpha + beta with purified [ab32104](#) at 1/20 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488)(1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32104](#)).

Flow Cytometry - Anti-PP2A alpha + beta antibody  
[E155] - BSA and Azide free ([ab226007](#))



Dot Blot - Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free (ab226007)

Dot blot was performed using [ab32104](#) at 1/1000 dilution. Goat Anti-Rabbit IgG,(H+L),HRP conjugated ([ab97051](#)) was used as secondary antibody at 1/100000 dilution.

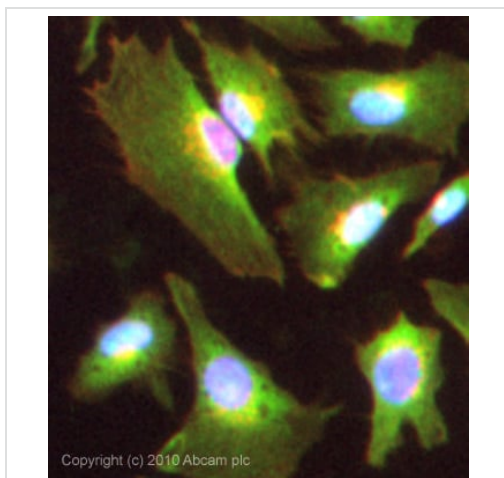
**Lane 1:** PP2A alpha + beta phospho peptide

**Lane 2:** PP2A alpha + beta non-phospho peptide

**Blocking and Diluting buffer and concentration:** 5% NFDm/TBST

**Exposure time:** 10 seconds

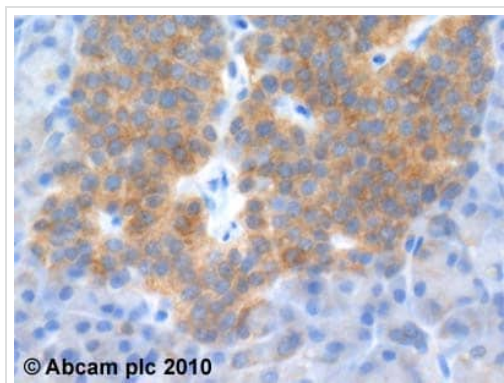
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32104](#)).



Immunocytochemistry/ Immunofluorescence - Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free (ab226007)

ICC/IF image of [ab32104](#) stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ([ab32104](#), 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32104](#)).




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free (ab226007)

[ab32104](#) (2µg/ml) staining PP2A alpha in human pancreas using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic staining of the islet of Langerhans.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer citrate pH6.1 in a DAKO PT link. Slides were peroxidase blocked in 3% H<sub>2</sub>O<sub>2</sub> in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32104](#)).

Why choose a recombinant antibody?



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

Anti-PP2A alpha + beta antibody [E155] - BSA and Azide free (ab226007)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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