

## Product datasheet

# Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free ab239862

Recombinant RabMAb

7 Images

### Overview

<b>Product name</b>	Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR933Y] to GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody detects both GSK alpha phosphorylated on tyrosine279 and GSK3 beta phosphorylated on tyrosine 216.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, Dot blot, IP, WB <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, Zebrafish
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC: Human thyroid carcinoma, human ovarian carcinoma.
<b>General notes</b>	ab239862 is the carrier-free version of <a href="#">ab68476</a> .

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.

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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR933Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab239862 in the following tested applications.

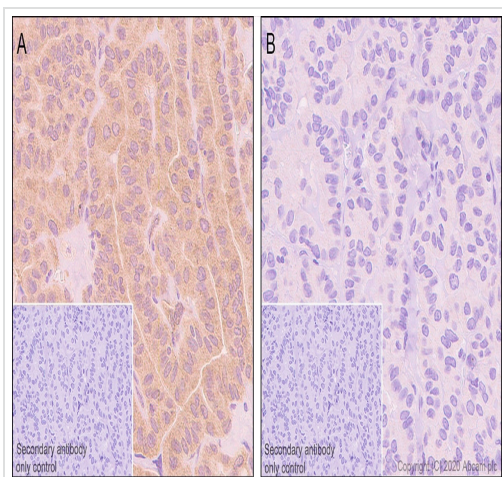
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>IHC-P</b>		1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. This antibody may not be suitable for IHC with mouse, rat or zebrafish samples. See <a href="#">IHC antigen retrieval protocols</a> .
<b>Dot blot</b>		Use at an assay dependent concentration.
<b>IP</b>		Use at an assay dependent concentration.
<b>WB</b>		Use at an assay dependent concentration. Detects a band of approximately 47-52 kDa (predicted molecular weight: 47 kDa).

**Application notes** Is unsuitable for Flow Cyt or ICC/IF.

## Target

**Cellular localization** GSK3 beta: Cytoplasm. Nucleus. Cell membrane. The phosphorylated form shows localization to cytoplasm and cell membrane. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane.



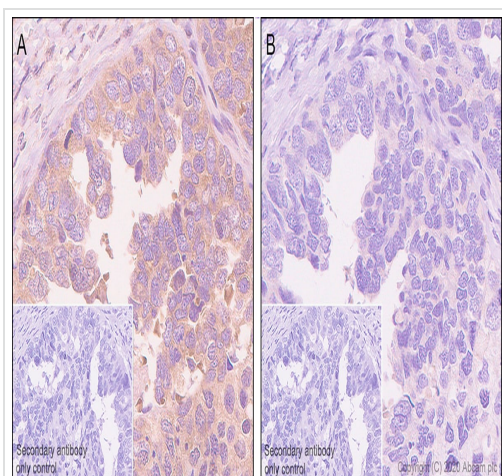
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue labelling GSK3 (alpha + beta) with purified **ab68476** at 1/2000. Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. **ab209101**, a Rabbit specific IHC polymer detection kit HRP/DAB was used. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Positive staining on human thyroid carcinoma without alkaline phosphatase treatment (image A). No signal was detected when tissues were treated with alkaline phosphatase (image B).

The section was incubated with **ab68476** for 30 minutes at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).



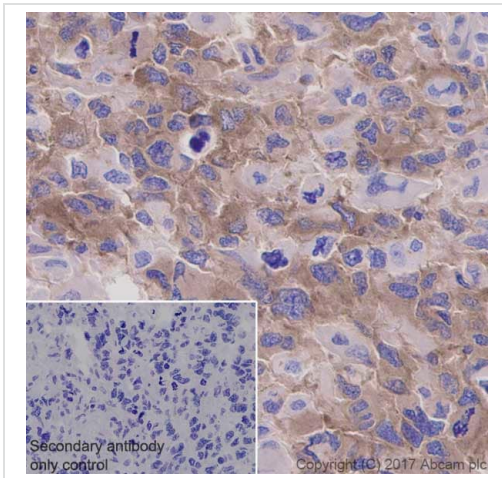
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma tissue labelling GSK3 (alpha + beta) with purified **ab68476** at 1/2000. Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. **ab209101**, a Rabbit specific IHC polymer detection kit HRP/DAB was used. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Positive staining on human ovarian carcinoma without alkaline phosphatase treatment (image A). No signal was detected when tissues were treated with alkaline phosphatase (image B).

The section was incubated with **ab68476** for 30 minutes at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument.

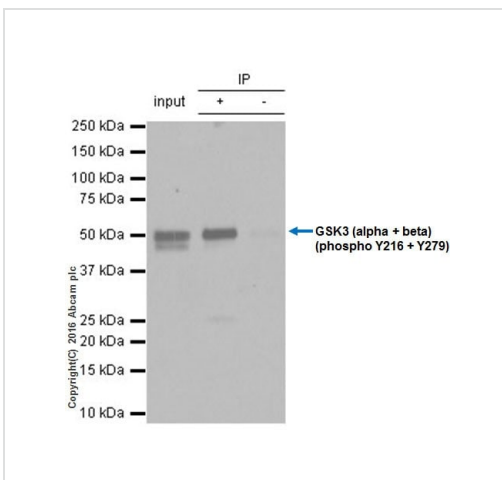
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human glioma tissue sections labeling GSK3 (alpha + beta) with Purified **ab68476** at 1:50 dilution (5.3 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).



Immunoprecipitation - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

GSK3 (alpha + beta) (phospho Y216 + Y279) was immunoprecipitated from 10µg HeLa (human cervix adenocarcinoma) whole cell lysate with **ab68476** at 1/50 dilution (2µg in 0.35mg lysates). Western blot was performed from the immunoprecipitate using **ab68476** at 1/200 dilution (9 µg/ml). VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

**Lane 1 (Input):** HeLa (human cervix adenocarcinoma) treated with 1uM staurosporine for 4h whole cell lysate 10µg

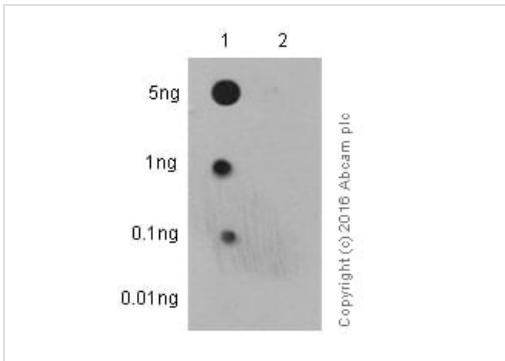
**Lane 2 (+):** HeLa (human cervix adenocarcinoma) treated with 1uM staurosporine for 4h whole cell lysate

**Lane 3:** Rabbit monoclonal IgG (**ab172730**) instead of **ab68476** in HeLa (human cervix adenocarcinoma) treated with 1uM staurosporine for 4h whole cell lysate

Exposure Time: 30 seconds

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

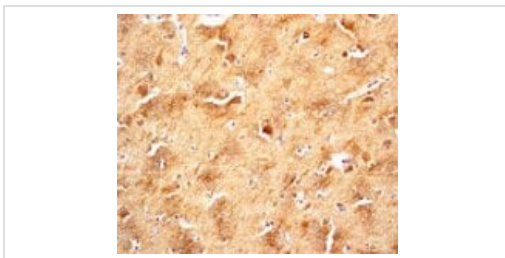
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).



Dot Blot - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

Dot Blot analysis of Lane 1: Human GSK3 (alpha + beta) (pY216 + pY279) phospho peptide and Lane 2: Human GSK3 (alpha + beta) non-phospho peptide labeling GSK3 (alpha + beta) (phospho Y216 + Y279) with **ab68476** at 1/1000 dilution. 5% NFDm/TBST was used as the diluting and blocking buffer. **ab97051** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as the secondary antibody at 1/100000 dilution. Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSK3 beta (phospho Y216) + GSK3 alpha (phospho Y279) antibody [EPR933Y] - BSA and Azide free (ab239862)

Human brain tissue stained with unpurified **ab68476** at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab68476**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Why choose a recombinant antibody?

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

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

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