

## Product datasheet

# Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free ab185927

KO VALIDATED Recombinant RabMAb

7 Images

### Overview

Product name	Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free
Description	Rabbit monoclonal [EP383Y] to PI 3 Kinase catalytic subunit alpha/PIK3CA - BSA and Azide free
Host species	Rabbit
Tested applications	<b>Suitable for:</b> ICC/IF, Flow Cyt (Intra), WB, IP <b>Unsuitable for:</b> IHC-P
Species reactivity	<b>Reacts with:</b> Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, MCF-7, Raw264.7 and NIH/3T3 cell lysates. ICC/IF: HeLa and Jurkat cells. IP: Jurkat whole cell lysate ( <a href="#">ab7899</a> ).
General notes	ab185927 is the carrier-free version of <a href="#">ab40776</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.

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

Form	Liquid
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<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>	EP383Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab185927 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		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab199376</b> -Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 110 kDa (predicted molecular weight: 110 kDa).
IP		Use at an assay dependent concentration.

**Application notes** Is unsuitable for IHC-P.

## Target

**Function** Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.

**Involvement in disease** Defects in PIK3CA are associated with colorectal cancer (CRC) [MIM:114500]. Defects in PIK3CA are a cause of susceptibility to breast cancer (BC) [MIM:114480]. A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Defects in PIK3CA are a cause of susceptibility to ovarian cancer (OC) [MIM:167000]. Ovarian cancer common malignancy originating from ovarian tissue. Although many histologic types of ovarian neoplasms have been described, epithelial ovarian carcinoma is the most common form. Ovarian cancers are often asymptomatic and the recognized signs and symptoms, even of late-stage disease, are vague. Consequently, most patients are diagnosed with advanced disease. Defects in PIK3CA may underlie hepatocellular carcinoma (HCC) [MIM:114550]. Defects in PIK3CA are a cause of keratosis seborrheic (KERSEB) [MIM:182000]. A common benign skin tumor. Seborrheic keratoses usually begin with the appearance of one or more sharply defined, light brown, flat macules. The lesions may be sparse or numerous. As they initially

grow, they develop a velvety to finely verrucous surface, followed by an uneven warty surface with multiple plugged follicles and a dull or lackluster appearance.

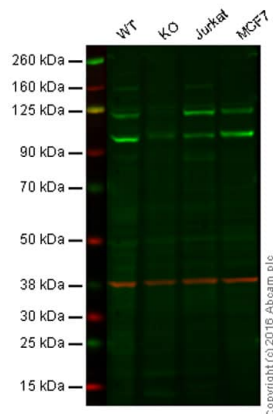
## Sequence similarities

Belongs to the PI3/PI4-kinase family.

Contains 1 C2 domain.

Contains 1 PI3K/PI4K domain.

## Images



Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

This WB data was generated using the same anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody clone, EP383Y, in a different buffer formulation (cat# [ab40776](#)).

**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

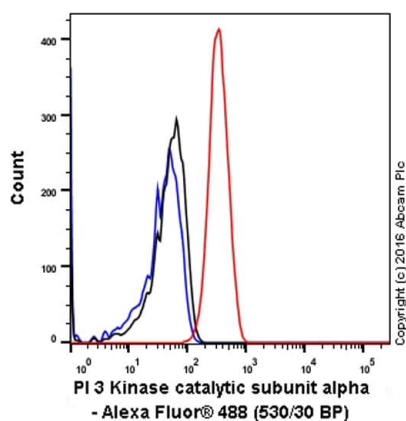
**Lane 2:** PI 3 Kinase catalytic subunit alpha/PIK3CA knockout HAP1 cell lysate (20 µg)

**Lane 3:** Jurkat cell lysate (20 µg)

**Lane 4:** MCF7 cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - [ab40776](#) observed at 120 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab40776](#) was shown to recognize PI 3 Kinase catalytic subunit alpha when PI 3 Kinase catalytic subunit alpha/PIK3CA knockout samples were used, along with additional cross-reactive bands. Wild-type and PI 3 Kinase catalytic subunit alpha/PIK3CA knockout samples were subjected to SDS-PAGE. [ab40776](#) and [ab8245](#) (loading control to GAPDH) were diluted to 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



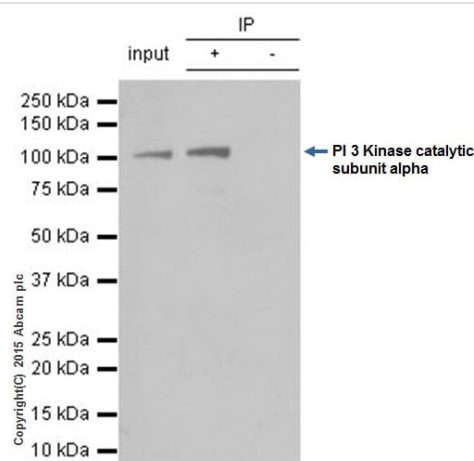
Flow Cytometry (Intracellular) - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

**ab40776** staining PI 3 Kinase catalytic subunit alpha/PIK3CA in the human cell line Jurkat (human acute T cell leukemia) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilised with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/40. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab40776**).



Immunoprecipitation - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

**ab40776** (purified) at a dilution of 1/20 immunoprecipitating PI 3 Kinase catalytic subunit alpha/PIK3CA in Jurkat whole cell lysate.

Lane 1 (input): Jurkat whole cell lysate (10µg)

Lane 2 (+): **ab40776** + Jurkat whole cell lysate.

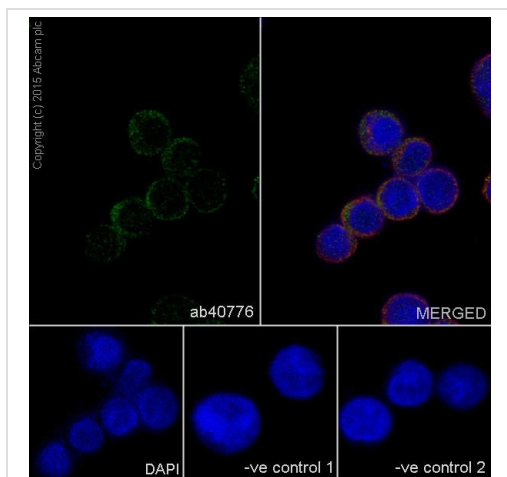
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab40776** in Jurkat whole cell lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Blocking buffer and concentration: 5% NFDM/TBST.

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 (**ab40776**).



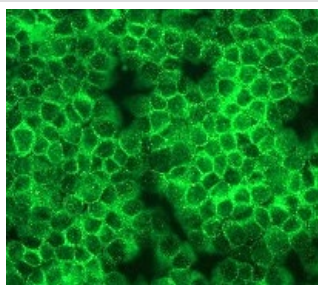
Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

Immunocytochemistry/Immunofluorescence analysis of Jurkat cells labelling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified **ab40776** at a dilution of 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/1000) and **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

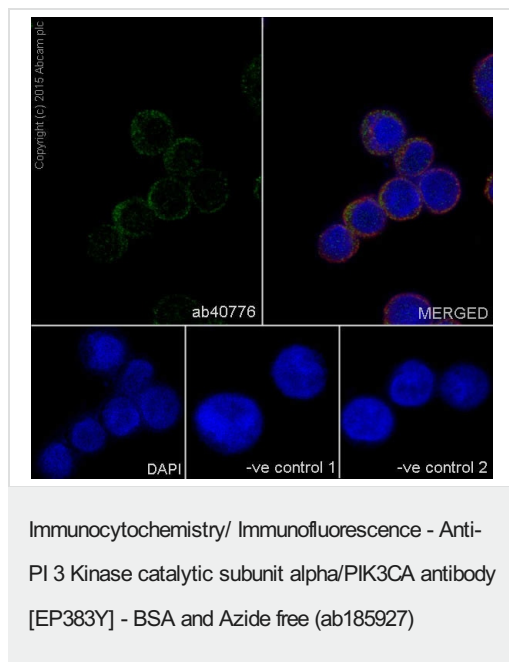
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab40776**).



Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling PI 3 Kinase catalytic subunit alpha/PIK3CA with unpurified **ab40776** at a dilution of 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab40776**).



This ICC/IF data was generated using the same anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody clone, EP383Y, in a different buffer formulation (cat# **ab40776**).

Immunocytochemistry/Immunofluorescence analysis of Jurkat cells labelling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified **ab40776** at a dilution of 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/1000) and **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

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-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] - BSA and Azide free (ab185927)

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

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