

Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] ab40776

敲除验证
重组
RabMAb

[1 Abreviews](#)
[65 References](#)
[10 图像](#)

概述

产品名称	Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA抗体[EP383Y]
描述	兔单克隆抗体[EP383Y] to PI 3 Kinase catalytic subunit alpha/PIK3CA
宿主	Rabbit
经测试应用	适用于: WB, ICC/IF, IP, Flow Cyt (Intra) 不适用于: IHC-P
种属反应性	与反应: Mouse, Rat, Human
免疫原	Synthetic peptide within Human PI 3 Kinase catalytic subunit alpha/PIK3CA aa 1000 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: P42336
阳性对照	WB: Jurkat, MCF-7, Raw264.7 and NIH/3T3 cell lysates. ICC/IF: HeLa and Jurkat cells. IP: Jurkat whole cell lysate (ab7899).
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
纯度	Protein A purified

克隆	单克隆
克隆编号	EP383Y
同种型	IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab40776于以下的经测试应用

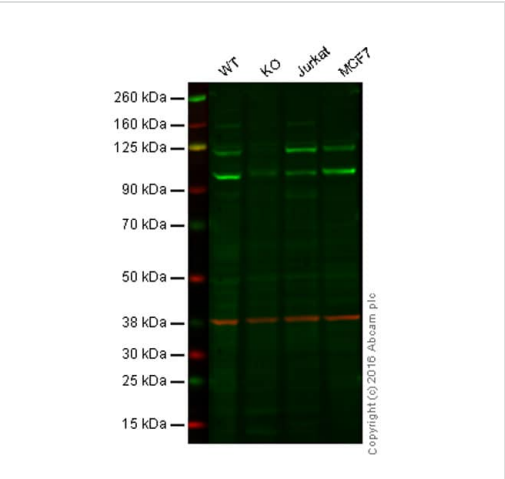
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000 - 1/10000. Detects a band of approximately 110 kDa (predicted molecular weight: 110 kDa).
ICC/IF		1/100 - 1/250.
IP		1/20 - 1/30.
Flow Cyt (Intra)		Use at an assay dependent concentration. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

应用说明 Is unsuitable for IHC-P.

靶标

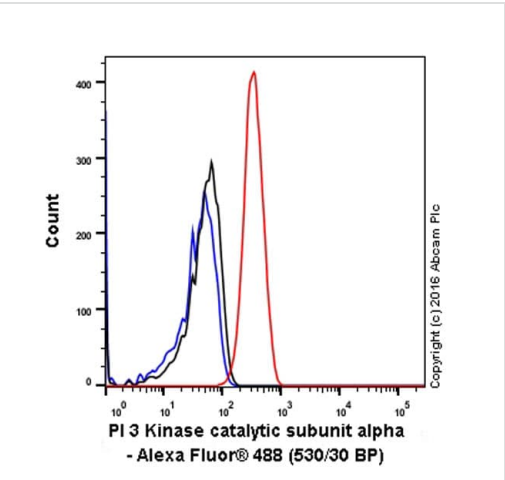
功能	Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.
疾病相关	<p>Defects in PIK3CA are associated with colorectal cancer (CRC) [MIM:114500].</p> <p>Defects in PIK3CA are a cause of susceptibility to breast cancer (BC) [MIM:114480]. A common malignancy originating from 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.</p> <p>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.</p> <p>Defects in PIK3CA may underlie hepatocellular carcinoma (HCC) [MIM:114550].</p> <p>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.</p>
序列相似性	<p>Belongs to the PI3/P14-kinase family.</p> <p>Contains 1 C2 domain.</p> <p>Contains 1 PI3K/P14K domain.</p>



Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

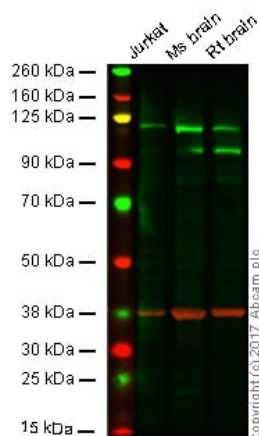
Lane 1: Wild-type HAP1 cell lysate (20 μ g)
Lane 2: PI 3 Kinase catalytic subunit alpha/PIK3CA knockout HAP1 cell lysate (20 μ g)
Lane 3: Jurkat cell lysate (20 μ g)
Lane 4: MCF7 cell lysate (20 μ g)
Lanes 1 - 4: Merged signal (red and green). Green - ab40776 observed at 120 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab40776 was shown to recognize PI 3 Kinase catalytic subunit alpha/PIK3CA 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] (ab40776)

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)



Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

All lanes : Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776) at 1/1000 dilution

Lane 1 : Jurkat Whole Cell Lysate

Lane 2 : Mouse Brain Tissue Lysate

Lane 3 : Rat Brain Tissue Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

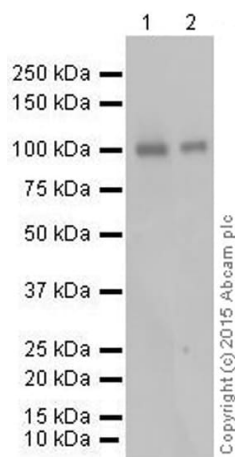
Performed under reducing conditions.

Predicted band size: 110 kDa

Observed band size: 120 kDa

Lanes 1 - 3: Merged signal (red and green). Green - ab40776 observed at 120 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using Licor blocking buffer before being incubated with ab40776 and [ab8245](#) (loading control) overnight at 4°C. Antibody binding was detected using Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at a 1:10000 dilution for 1hr at room temperature and then imaged.



Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

All lanes : Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776) at 1/5000 dilution (purified)

Lane 1 : Jurkat whole cell lysate

Lane 2 : MCF-7 whole cell lysate

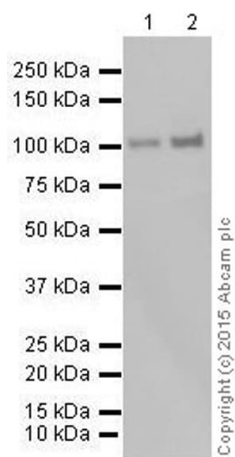
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 110 kDa

Observed band size: 110 kDa



Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

All lanes : Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776) at 1/5000 dilution (purified)

Lane 1 : Raw264.7 whole cell lysate

Lane 2 : NIH/3T3 whole cell lysate

Lysates/proteins at 20 µg per lane.

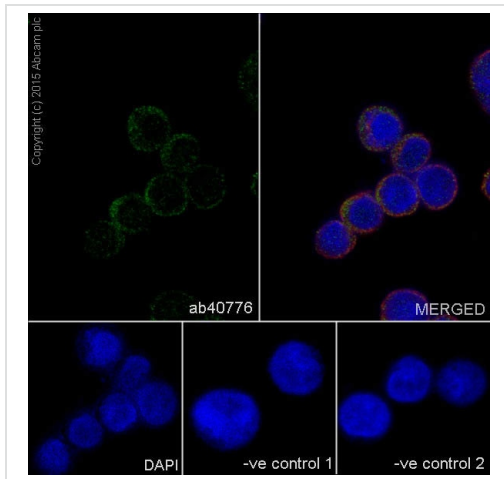
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 110 kDa

Observed band size: 110 kDa

Blocking and dilution buffer: 5% NFDM/TBST

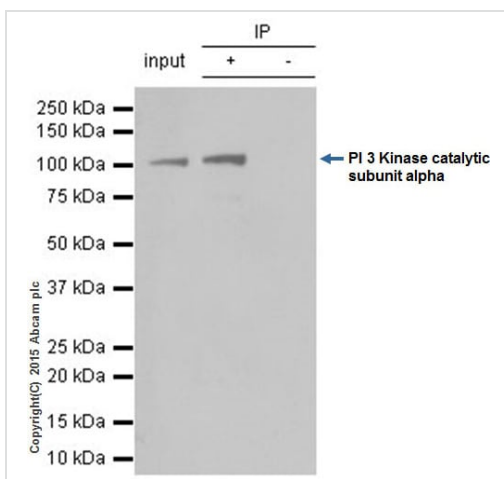


Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

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).



Immunoprecipitation - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

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)

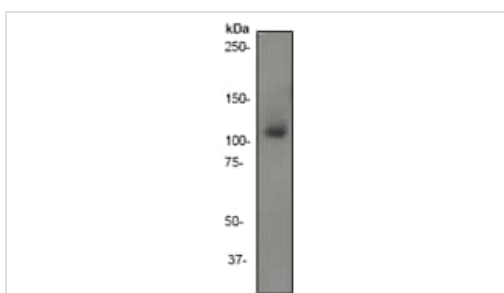
Lane 2 (+): ab40776 + Jurkat whole cell lysate.

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

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

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

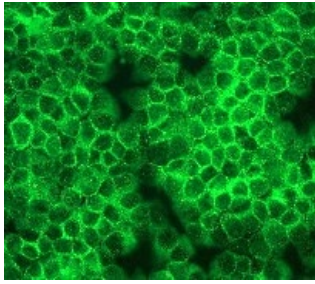


Western blot - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776) at 1/5000 dilution (unpurified) + Jurkat cell lysate at 10 µg

Predicted band size: 110 kDa

Observed band size: 110 kDa



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

Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EP383Y] (ab40776)

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] (ab40776)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors