

Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EPR19693] - BSA and Azide free ab223532

KO VALIDATED Recombinant RabMAb

3 Images

Overview

Product name	Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EPR19693] - BSA and Azide free
Description	Rabbit monoclonal [EPR19693] to PI 3 Kinase catalytic subunit alpha/PIK3CA - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IP, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: F9 and M1 whole cell lysates; Mouse hypothalamus and fetal brain lysates; P0 Rat brain lysate. IP: Mouse hypothalamus lysate.
General notes	<p>ab223532 is the carrier-free version of ab183957.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.</p> <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</p>

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19693
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab223532 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
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 110 kDa (predicted molecular weight: 124 kDa).

Target

Function	Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.
Involvement in disease	<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</p>

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.

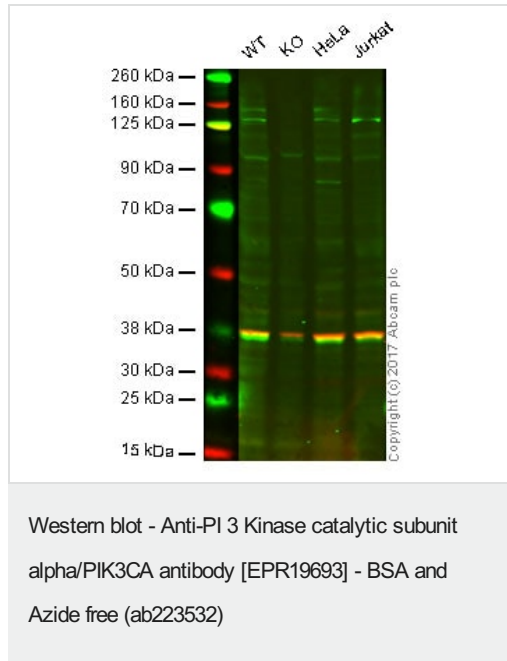
Sequence similarities

Belongs to the PI3/PI4-kinase family.

Contains 1 C2 domain.

Contains 1 PI3K/PI4K domain.

Images



This WB data was generated using the same anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody clone [EPR19693] in a different buffer formulation (cat# [ab183957](#)).

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

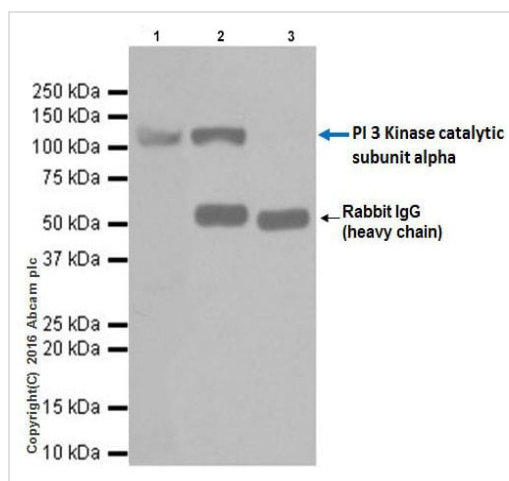
Lane 2: PI 3 Kinase catalytic subunit alpha/PIK3CA knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: Jurkat whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - [ab183957](#) observed at 125 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

[ab183957](#) was shown to recognize PI 3 Kinase catalytic subunit alpha/PIK3CA in wild type cells as signal was lost at the expected MW in PI 3 Kinase catalytic subunit alpha/PIK3CA knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and PI 3 Kinase catalytic subunit alpha/PIK3CA knockout samples were subjected to SDS-PAGE. [ab183957](#) and [ab9484](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [EPR19693] - BSA and Azide free (ab223532)

This IP data was generated using the same anti-PI 3 Kinase catalytic subunit alpha antibody clone [EPR19693] in a different buffer formulation (cat# [ab183957](#)).

PI 3 Kinase catalytic subunit alpha was immunoprecipitated from 0.35 mg of mouse hypothalamus lysate with [ab183957](#) at 1/30 dilution.

Western blot was performed from the immunoprecipitate using [ab183957](#) at 1/500 dilution.

VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Lane 1: Mouse hypothalamus lysate, 10µg (Input).

Lane 2: [ab183957](#) IP in mouse hypothalamus lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of [ab183957](#) in mouse hypothalamus lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

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

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

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