


Product datasheet

Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] ab135384

Recombinant RabMAb

[1 References](#) [6 Images](#)

Overview

Product name	Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139]
Description	Rabbit monoclonal [SP139] to PI 3 Kinase catalytic subunit alpha/PIK3CA
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF, Flow Cyt (Intra)
Species reactivity	Reacts with: Rat, Human Predicted to work with: Mouse, Chicken, Cow 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC: Human breast carcinoma Tissue. Flow Cyt (Intra): HeLa, and C6 cells. ICC/IF: HeLa, and C6 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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 For more information see here .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Protein A/G purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP139

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab135384 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
IHC-P		1/100. Perform heat mediated antigen retrieval by boiling tissue section in 1mM EDTA buffer, pH 8.0 for 10 min followed by cooling at room temperature for 20 min. Incubate with primary antibody for 10 minutes at room temperature.
ICC/IF		1/25.
Flow Cyt (Intra)		1/250.

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.

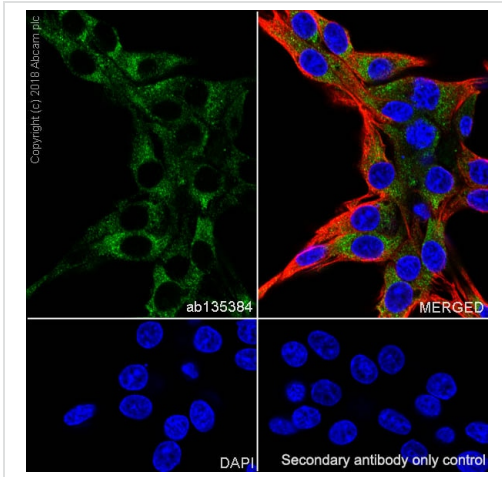
Sequence similarities

Belongs to the PI3/P14-kinase family.

Contains 1 C2 domain.

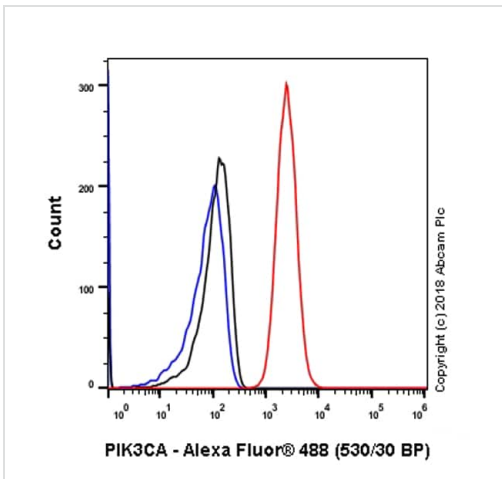
Contains 1 PI3K/PI4K domain.

Images



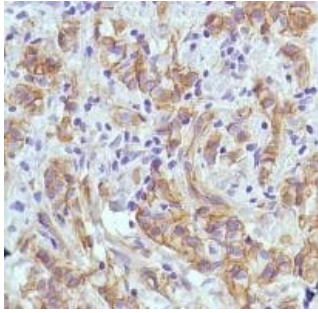
Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] (ab135384)

Immunocytochemistry/ Immunofluorescence analysis of C6 (rat glial tumor glial cell) cells labeling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified ab135384 at 1:25(10 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



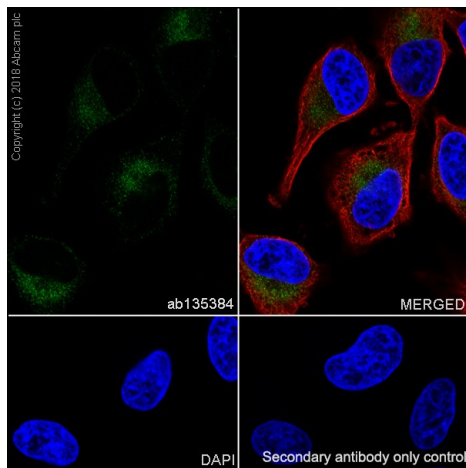
Flow Cytometry (Intracellular) - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] (ab135384)

Flow Cytometry analysis of C6(Rat glial tumor glial cell) cells labeling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified ab135384 at 1:250 dilution (1.00 µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (**ab172730**) / Black. Unlabeled control - Unlabelled cells / Blue.



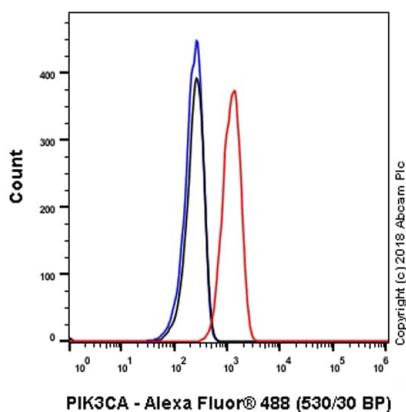
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] (ab135384)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast carcinoma tissue labelling PI 3 Kinase catalytic subunit alpha/PIK3CA with ab135384 at 1/100 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] (ab135384)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified ab135384 at 1/25 dilution (10 µg/mL). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 dilution (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 dilution (2 µg/mL). DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control. Confocal image showing cytoplasmic staining in HeLa cells.



Flow Cytometry (Intracellular) - Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA antibody [SP139] (ab135384)

Flow Cytometry analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling PI 3 Kinase catalytic subunit alpha/PIK3CA with purified ab135384 at 1:250 dilution (1.00 µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (**ab172730**) / Black. Unlabeled control - Unlabelled cells / Blue.

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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