

Datasheet for ABIN3043462  
**anti-PIK3CA antibody (AA 936-1068)**



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## Overview

|                      |                                              |
|----------------------|----------------------------------------------|
| Quantity:            | 100 µg                                       |
| Target:              | PIK3CA                                       |
| Binding Specificity: | AA 936-1068                                  |
| Reactivity:          | Human                                        |
| Host:                | Rabbit                                       |
| Clonality:           | Polyclonal                                   |
| Conjugate:           | This PIK3CA antibody is un-conjugated        |
| Application:         | Western Blotting (WB), Flow Cytometry (FACS) |

## Product Details

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose:                    | Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA Antibody Picoband®                                                                                                                                                                                                                                                                                                                                                                              |
| Immunogen:                  | E.coli-derived human PIK3CA recombinant protein (Position: H936-N1068). Human PIK3CA shares 98% amino acid (aa) sequence identity with mouse PIK3CA.                                                                                                                                                                                                                                                                                            |
| Isotype:                    | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Cross-Reactivity (Details): | No cross-reactivity with other proteins                                                                                                                                                                                                                                                                                                                                                                                                         |
| Characteristics:            | Anti-PI 3 Kinase catalytic subunit alpha/PIK3CA Antibody Picoband® (ABIN3043462). Tested in Flow Cytometry, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Purification:               | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Target Details

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target:           | PIK3CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Alternative Name: | PIK3CA ( <a href="#">PIK3CA Products</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Background:       | <p>Synonyms: Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform,PI3-kinase subunit alpha,PI3K-alpha,PI3Kalpha,PtdIns-3-kinase subunit alpha,2.7.1.153,Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha,PtdIns-3-kinase subunit p110-alpha,p110alpha,Phosphoinositide-3-kinase catalytic alpha polypeptide,Serine/threonine protein kinase PIK3CA,2.7.11.1,PIK3CA,</p> <p>Tissue Specificity: Expressed in a number of cell lines of T-cell, B-cell and fibroblast origin. Strong expression in brain tissue.</p> <p>Background: Phosphatidylinositol-4,5-bisphosphate 3-kinase, also called PIK3CA, is composed of an 85 kDa regulatory subunit and a 110 kDa catalytic subunit. PIK3CA gene is mapped to 3q26.32. The protein encoded by this gene represents the catalytic subunit, which uses ATP to phosphorylate phosphatidylinositols (PtdIns), PtdIns4P and PtdIns(4,5)P2. Recent evidence has shown that the PIK3CA gene is mutated in a range of human cancers. It has been found to be oncogenic and has been implicated in cervical cancers. PIK3CA mutations in breast cancer may be a predictive marker to guide the selection of patients who would benefit from mTOR inhibitor therapy. In addition to that, the presence of PIK3CA mutation may predict response to aspirin therapy for colorectal cancer, indicating power and promise of "Molecular Pathological Epidemiology (MPE)" approach as well as a complex interaction within the tumor microenvironment in this phenomenon.</p> <p>Sequence Similarities: Belongs to the PI3/PI4-kinase family.</p> |
| Molecular Weight: | 124 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Gene ID:          | 5290                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UniProt:          | <a href="#">P42336</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Pathways:         | <a href="#">PI3K-Akt Signaling</a> , <a href="#">RTK Signaling</a> , <a href="#">TCR Signaling</a> , <a href="#">AMPK Signaling</a> , <a href="#">Interferon-gamma Pathway</a> , <a href="#">TLR Signaling</a> , <a href="#">Fc-epsilon Receptor Signaling Pathway</a> , <a href="#">EGFR Signaling Pathway</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Inositol Metabolic Process</a> , <a href="#">Hepatitis C</a> , <a href="#">CXCR4-mediated Signaling Events</a> , <a href="#">Signaling Events mediated by VEGFR1 and VEGFR2</a> , <a href="#">Signaling of Hepatocyte Growth Factor Receptor</a> , <a href="#">VEGFR1 Specific Signals</a> , <a href="#">VEGF Signaling</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Application Details

|                    |                                                                                                           |
|--------------------|-----------------------------------------------------------------------------------------------------------|
| Application Notes: | Western blot, 0.1-0.5 µg/mL, Human                                                                        |
|                    | Flow Cytometry (Fixed), 1-3 µg/1x10 <sup>6</sup> cells, Human1.Hiles I, Otsu M, Volinia S, Fry M, Gout I, |

## Application Details

Dhand R et al. (August 1992). "Phosphatidylinositol 3-kinase: structure and expression of the 110 kd catalytic subunit". Cell 70 (3): 419-29. 2.Ma Y, Wei S, Lin Y, Lung J, Chang T, Whang-Peng J et al. (May 2000). "PIK3CA as an oncogene in cervical cancer". Oncogene 19 (23): 2739-44. 3.Weigelt, B., Warne, P. H., Downward, J. PIK3CA mutation, but not PTEN loss of function, determines the sensitivity of breast cancer cells to mTOR inhibitory drugs. Oncogene 30: 3222-3233, 2011.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na<sub>2</sub>HPO<sub>4</sub>.

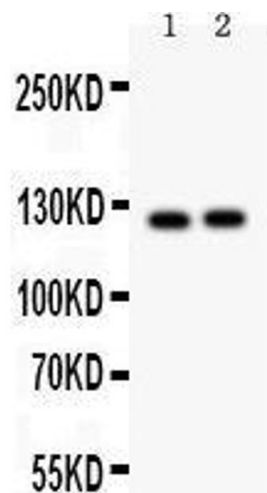
Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

## Publications

Product cited in: Wang, Sun, Li, Dong, Li, Zhao: "Resveratrol attenuates intermittent hypoxia-induced insulin resistance in rats: involvement of Sirtuin 1 and the phosphatidylinositol-4,5-bisphosphate 3-kinase/AKT pathway." in: **Molecular medicine reports**, Vol. 11, Issue 1, pp. 151-8, (2014) ([PubMed](#)).



Western Blotting

**Image 1.** Anti- PIK3CAPicoband antibody, Western blotting  
All lanes: Anti PIK3CA at 0.5ug/ml Lane 1: SW620 Whole Cell Lysate at 40ug Lane 2: PC12 Whole Cell Lysate at 40ug Predicted bind size: 124KD Observed bind size: 124KD