Datasheet for ABIN5596667

# anti-AKT1 antibody (Internal Region) (PE)

3 Images

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## Overview

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|---|---|
| Quantity: | 50 µg |
| Target: | AKT1 |
| Binding Specificity: | Internal Region |
| Reactivity: | Human, Mouse, Rat |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This AKT1 antibody is conjugated to PE |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS), Dot Blot (DB), Fluorescence Microscopy (FM) |

## Product Details

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| Purpose: | AKT1 PE Antibody |
| Immunogen: | Immunogen: Anti-AKT1 Antibody was produced in mice by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT1 protein followed by monoclonal development.<br>Immunogen Type: Conjugated Peptide |
| Clone: | 14E5-A2-B2-H9 |
| Isotype: | IgG2a kappa |
| Cross-Reactivity (Details): | Anti-AKT1 antibody is directed against human AKT1. The antibody detects both unphosphorylated and phosphorylated forms of the protein. |
| Characteristics: | Synonyms: mouse anti-AKT1 antibody PE conjugation, Phycoerythrin conjugated mouse anti- |

## Product Details

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| | AKT-1 antibody, AKT-1, PKB antibody, PKB gamma antibody, PKBGAMMA antibody, PRKBG antibody, Protein kinase Akt 1 antibody, Protein kinase B gamma antibody, RAC-gamma serine/threonine-protein kinase, RAC-PK-gamma |
| Labeling Ratio: | 1-2 |

## Target Details

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| Target: | AKT1 |
| Alternative Name: | AKT1 (AKT1 Products) |
| Background: | Background: AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis, (ii) promotion of proliferation. Anti-AKT1 (MOUSE) PE conjugated Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research. |
| Gene ID: | 207 |
| NCBI Accession: | NP_001014431 |
| UniProt: | P31749 |
| Pathways: | PI3K-Akt Signaling, RTK Signaling, TCR Signaling, AMPK Signaling, Interferon-gamma Pathway, TLR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Response to Water Deprivation, Regulation of Actin Filament Polymerization , Carbohydrate Homeostasis, Glycosaminoglycan Metabolic Process, Cellular Glucan Metabolic Process, Regulation of Muscle Cell Differentiation, Cell-Cell Junction Organization, Regulation of Cell Size, Skeletal Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process, Hepatitis C, Protein targeting to Nucleus, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, Negative Regulation of intrinsic apoptotic Signaling, Thromboxane A2 Receptor Signaling, Signaling of Hepatocyte Growth Factor Receptor, Positive Regulation of fat Cell Differentiation, VEGFR1 Specific Signals, VEGF Signaling, Warburg Effect |

## Application Details

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| Application Notes: | Flow Cytometry Dilution: 1.0 µg/mL<br>Immunohistochemistry Dilution: User Optimized<br>Application Note: Anti-AKT1 PE Antibody is tested for Flow Cytometry. This antibody is suitable for ELISA, immunohistochemistry, and western blotting. Expect a band approximately 56 kDa in size corresponding to AKT1 protein by western blotting in the appropriate cell lysate or extract. This monoclonal antibody reacts with human AKT. Specific conditions for reactivity should be optimized by the end user. For immunohistochemistry we recommend the use of fresh frozen tissues. Attempts at staining paraffin-embedded formalin fixed tissues were negative. No pre-treatment of sample is required.<br>Western Blot Dilution: User Optimized<br>ELISA Dilution: User Optimized<br>IF Microscopy Dilution: User Optimized |
| Restrictions: | For Research Use only |

## Handling

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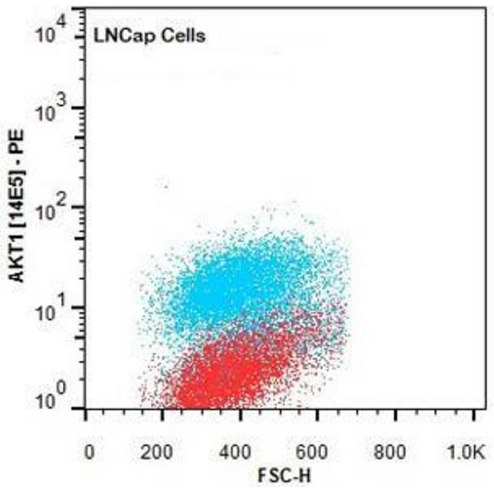
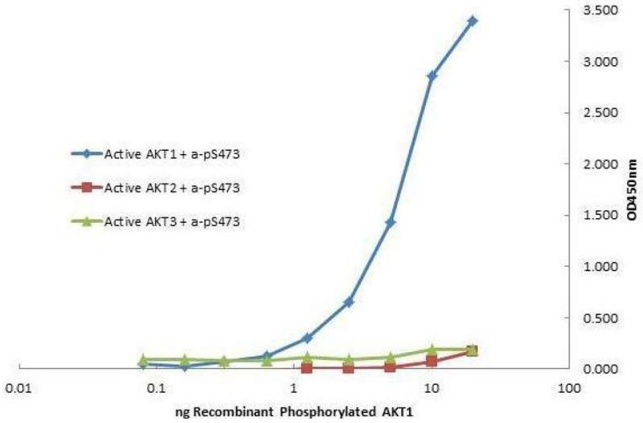
| Format: | Lyophilized |
| Reconstitution: | Reconstitution Volume: 50µL<br>Reconstitution Buffer: Restore with deionized water (or equivalent) |
| Concentration: | 1.0 mg/mL |
| Buffer: | Buffer: 0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2<br>Stabilizer: 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free<br>Preservative: None |
| Preservative: | Without preservative |
| Storage: | 4 °C |
| Storage Comment: | Store vial at 4° C prior to restoration. Restore with deionized water (or equivalent). This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. Centrifuge product if not completely clear after standing at room temperature. Do not freeze after reconstitution. Store reagent in the dark. Use subdued lighting during handling and incubation of cells prior to analysis. |
| Expiry Date: | 12 months |



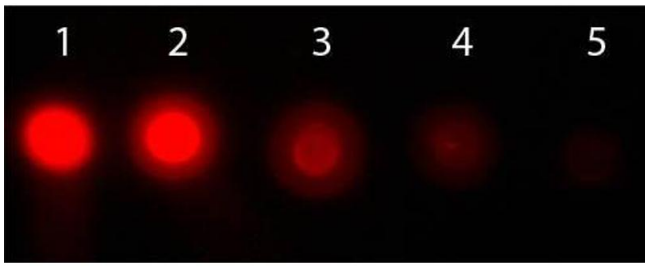

## Flow Cytometry

**Image 1.** Flow Cytometry of Mouse Anti-AKT1 antibody. Cells: LNCap Cells. Stimulation: none. Primary antibody: Phycoerythrin AKT1 antibody at 1.0 µg/mL for 20 min at 4°C.




## ELISA

**Image 2.** Plate was coated with monoclonal anti AKT1 antibody (capture antibody) followed by incubation with recombinant AKT1, AKT2, AKT3 proteins. Binding was detected with biotinylated monoclonal anti AKT pS473. The signal shows specificity of the monoclonal anti-AKT1 antibody to recombinant isoform AKT1 protein and not the isoform 2 and 3.




## Dot Blot

**Image 3.** Dot Blot of AKT1 Phycoerythrin Conjugated Monoclonal Antibody. Antigen: AKT1 non-phosphorylated. Load: Lane 1 - 50 ng Lane 2 - 16.67 ng Lane 3 - 5.56 ng Lane 4 - 1.85 ng Lane 5 - 0.62 ng. Primary antibody: none. Secondary antibody: AKT1 Phycoerythrin Conjugated Monoclonal Antibody at 1:1,000 in ABIN925618 for 60 min at RT. Block: ABIN925618 for 60 min at RT.