

Datasheet for ABIN1607687  
**anti-AKT1 antibody (Internal Region)**



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4 Images

## Overview

Quantity:	100 µg
Target:	AKT1
Binding Specificity:	Internal Region
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This AKT1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS)

## Product Details

Purpose:	AKT1 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. Immunogen Type: Conjugated Peptide
Clone:	5E5-F5-D7
Isotype:	IgG2b 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, 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

## Product Details

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Sterility: Sterile filtered

## Target Details

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Target: AKT1

Alternative Name: AKT1 ([AKT1 Products](#))

Background: Background: AKT1 Antibody detects AKT1 which 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 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 Antibody is ideal for investigators involved in Cell Signaling, Neuroscience and Signal Transduction research.

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: User Optimized  
Immunohistochemistry Dilution: 20 µg/mL  
Application Note: Anti-AKT1 Antibody is tested in ELISA, Flow Cytometry, and western blotting.  
This antibody is suitable in immunohistochemistry. Expect a band approximately 56 kDa in size

## Application Details

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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.

Western Blot Dilution: 1:500-1:2000

ELISA Dilution: 1:2,000 - 1:10,000

Other: User Optimized

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Concentration: 1 mg/mL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01 % (w/v) Sodium Azide

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Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

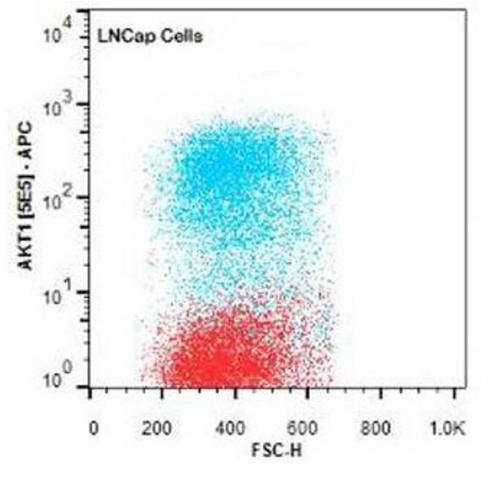
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Storage: 4 °C,-20 °C

Storage Comment: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

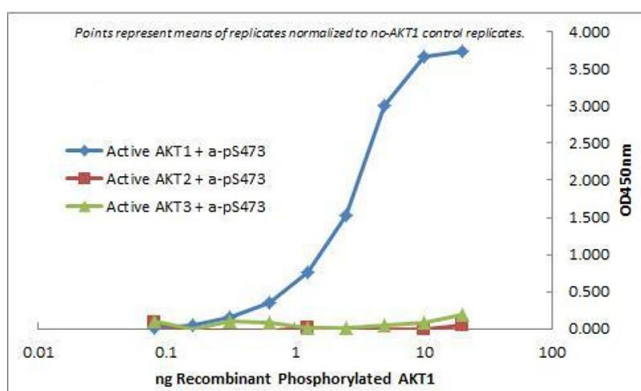
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Expiry Date: 12 months



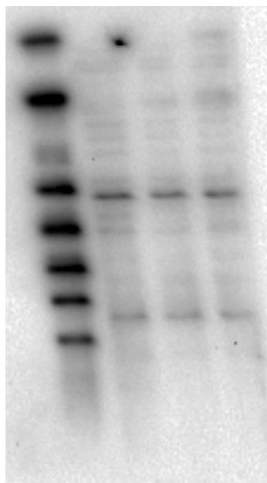
### Flow Cytometry

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



### ELISA

**Image 2.** ELISA of Mouse Monoclonal anti-AKT1 antibody. Antigen: GST AKT1, GST AKT2, GST AKT3. Coating amount: starting from 50 ng/well. Primary antibody: Mouse monoclonal anti-AKT1 antibody at 100 ng/well. Dilution series: 2-fold. Mid-point concentration: 3 ng/mL Mouse monoclonal anti-AKT1 antibody. Secondary antibody: Peroxidase mouse secondary antibody at 1:10,000. Substrate: TMB .



### Western Blotting

**Image 3.** Western Blot of Mouse Anti-AKT1 antibody. Lane 1: LnCap lysate Lane 2: Jurkat lysate. Lane 3: MDA-MB 468 lysate. Load: 5 µg per lane. Primary antibody: AKT1 antibody at 1:1000 for overnight at 4°C. Secondary antibody: Mouse secondary antibody at 1:20,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 56 kDa for AKT1.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN1607687.