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Datasheet for 200-302-J34

AKT1 FITC Antibody

Overview

Description:	Anti-AKT1 (MOUSE) Fluorescein Conjugated Monoclonal Antibody - 200-302-J34
Item No.:	200-302-J34
Size:	50 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Mouse

Product Details

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.
Synonyms:	mouse anti-AKT1 antibody FITC conjugation, fluorescein conjugated mouse anti-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
Host Species:	Mouse
Conjugate:	Fluorescein (FITC)
Clonality:	Monoclonal
Clone ID:	5E5.F5.D7
Format:	IgG2a
F/P Ratio:	5.0

Target Details

Gene Name:	AKT1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
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.
Purity/Specificity:	Anti-AKT1 antibody is directed against human AKT1. The antibody detects both unphosphorylated and phosphorylated forms of the protein. Anti-AKT1 antibody was purified from ascites by Protein A chromatography. Cross reactivity with AKT1 from other species has not been determined, however, the sequence of the immunogen shows 85% identity to mouse and 92% identity with rat, therefore, cross reactivity is expected.
Relevant Links:	• UniProtKB - P31749 • NCBI - NP_001014431.1 • GeneID - 207

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-AKT1 FITC Antibody has been tested by ELISA and western blot and is suitable for Flow Cytometry, 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	User Optimized
IF:	User Optimized
IHC:	User Optimized
WB:	User Optimized

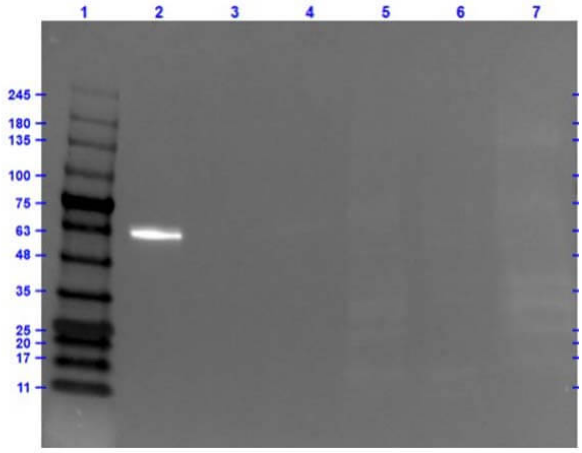
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	50µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

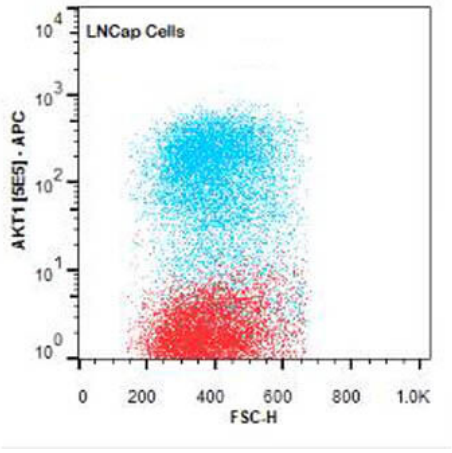
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to restoration. Restore with deionized water (or equivalent). For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



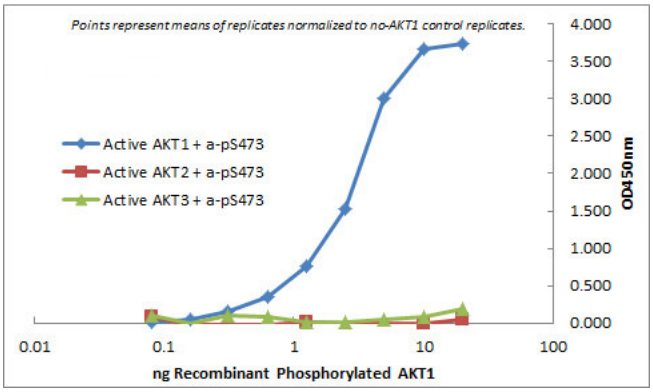
Western Blot

Western Blot of Mouse Anti-AKT1 Fluorescein Conjugated Antibody.
Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500).
Lane 2: AKT1 Recombinant Protein (0.05µg).
Lane 3: AKT2 Recombinant Protein (0.05µg).
Lane 4: AKT3 Recombinant Protein (0.05µg).
Lane 5: HEPG2 Whole Cell Lysate (20µg).
Lane 6: C2C12 Whole Cell Lysate (20µg).
Lane 7: A549 Whole Cell Lysate (20µg).
Primary Antibody: Mouse Anti-AKT1 FITC at 1.0µg/mL overnight at 2-8°C.
Secondary Antibody: Rabbit Anti-Mouse HRP (p/n 610-403-C46) at 1:40,000 for 30mins at RT.
Blocking: Fluorescent Buffer (p/n MB-073) for 1hr at RT.
Predicted MW: ~56kDa.
Exposure: 0.5 sec.



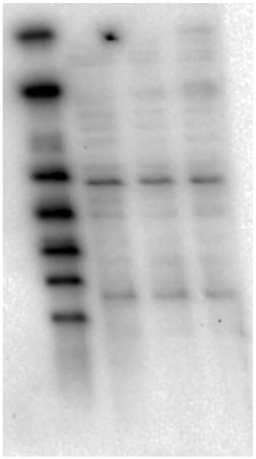
Flow Cytometry

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.

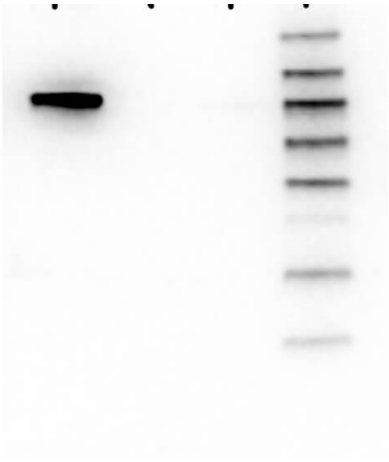


ELISA

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 (p/n TMBE-0100).



Western Blot
Western Blot of Mouse Anti-AKT1 antibody. Lane 1: Molecular Weight Marker. Lane 2: LnCap lysate (p/n W09-001-GJ9). Lane 3: Jurkat lysate (p/n W09-001-370). Lane 4: MDA-MB 468 lysate (p/n W09-001-GG9). 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.



Western Blot
Western Blot of Mouse anti-AKT1 antibody. Lane 1: GST-AKT1. Lane 2: GST-AKT2. Lane 3: GST-AKT3. Lane 4: Molecular Weight Marker. Load: 25 ng per lane. Primary antibody: AKT1 antibody at 1:1000 for overnight at 4°C. Secondary antibody: Mouse secondary antibody at 1:40,000 for 30 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 78 kDa for AKT1. Other band(s): none.

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