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Datasheet for 200-326-J34

AKT1 APC Antibody

Overview

Description:	Anti-AKT1 (MOUSE) Allophycocyanin Conjugated Monoclonal Antibody - 200-326-J34
Item No.:	200-326-J34
Size:	50 µg
Applications:	Dot Blot, FC
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) APC conjugated Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.
Synonyms:	mouse anti-AKT1 antibody APC conjugation, allophycocyanin 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:	Allophycocyanine (APC)
Clonality:	Monoclonal
Clone ID:	5E5.F5.D7
Format:	IgG2a
F/P Ratio:	1-2

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:	Dot Blot, FC
Application Note:	Anti-AKT1 APC 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	1.0 µg/mL
IF:	User Optimized
IHC:	User Optimized
WB:	User Optimized

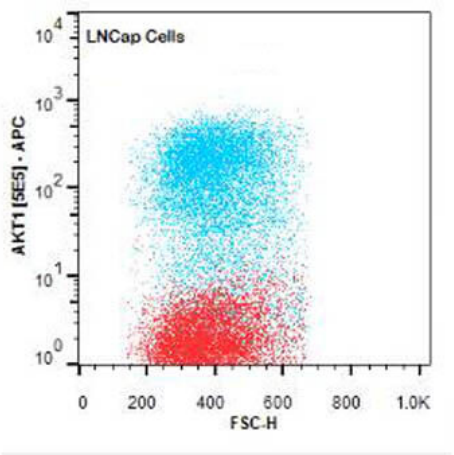
Formulation

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:	None
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	50µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

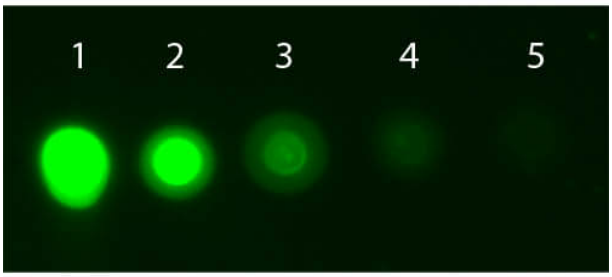
Shipping & Handling

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

Images



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.



Dot Blot

Dot Blot of AKT1 Allophycocyanin 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 Allophycocyanin Conjugated Monoclonal Antibody at 1:1,000 in MB-070 for 60 min at RT. Block: MB-070 for 60 min at RT.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.