

Datasheet for 200-355-268

AKT phospho S473 ATTO594 Conjugated Antibody

Overview

Description:	Anti-AKT pS473 (MOUSE) Monoclonal Antibody ATTO 594 Conjugated - 200-355-268
Item No.:	200-355-268
Size:	100 µg
Applications:	WB
Reactivity:	Human, Mouse, Rat, Monkey
Host Species:	Mouse

Product Details

Background:	Anti-AKT antibody detects AKT 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 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. Phospho AKT antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.
Synonyms:	mouse anti-AKT pS473 ATTO 594 conjugated Antibody, ATTO 594 conjugated mouse anti-AKT pS473 Antibody, RAC-PK-alpha, Protein kinase B, PKB, C-AKT, RAC-alpha serine/threonine-protein kinase, Proto-oncogene c-Akt, AKT1, AKT 1, AKT-1, AT594, ATTO 594, ATTO-TEC 594
Host Species:	Mouse
Conjugate:	ATTO 594
Clonality:	Monoclonal
Clone ID:	17F6.B11
Format:	IgG1
F/P Ratio:	2.5

Target Details

Gene Name:	AKT1
Reactivity:	Human, Mouse, Rat, Monkey
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Akt phospho S473 ATTO594 Conjugated Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding S473 of human AKT1 protein.
Purity/Specificity:	Anti-AKT pS473 Monoclonal Antibody was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human and mouse AKT protein phosphorylated at S473. A BLAST analysis was used to suggest cross-reactivity with AKT pS473 from human, mouse, rat and chimpanzee sources based on 100% homology with the immunizing sequence. Cross-reactivity with AKT from other sources has not been determined. Cross-reactivity with AKT2 and AKT3 has not been determined.
Relevant Links:	• 200-355-268 SDS • GenelD - 207 • NCBI - 62241011 • UniProtKB - P31749

Application Details

Tested Applications:	WB
Application Note:	Anti-AKT pS473 Antibody ATTO 594 Conjugated is designed for STED microscopy, FRET, immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. This antibody has been tested in fluorescent western blotting. Expect a band approximately 56 kDa in size corresponding to phosphorylated AKT protein by western blotting in the appropriate cell lysate or extract. This phospho-specific monoclonal antibody reacts with human and mouse AKT pS473 and shows minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000
FC:	User Optimized
FLISA:	>1:20,000

IF:	>1:5,000
WB:	>1:10,000

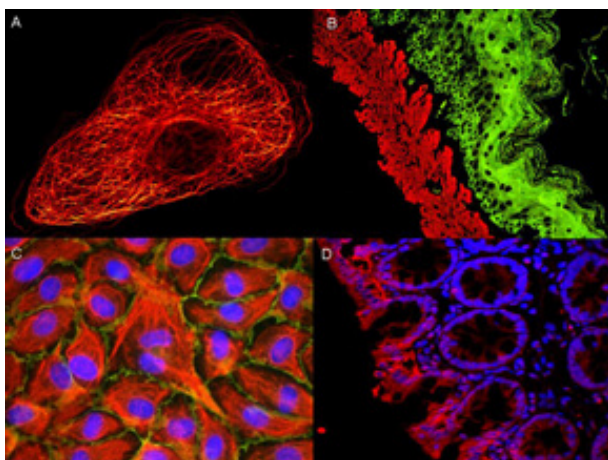
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 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:	100 μ L
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

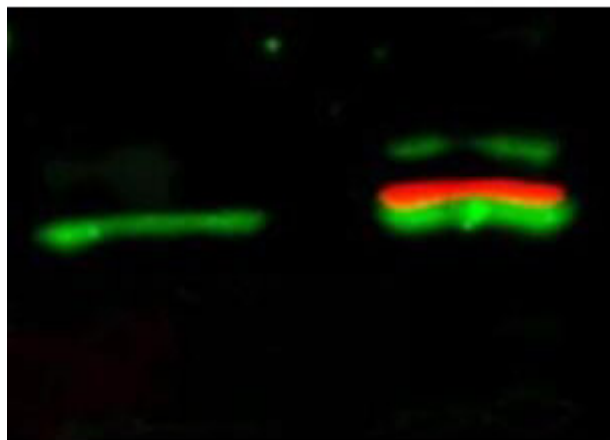
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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



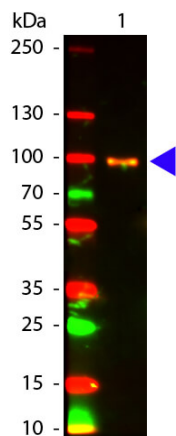
Immunofluorescence Microscopy

ATTO dyes can be used for multicolor immunofluorescent detection with low background and high signal. Examples shown are: A. Tubulin in PtK2- male Rat Kangaroo Kidney Epithelial Cells was detected using ATTO 532 labeled secondary antibody. B. Muscle alpha-actin was stained with a mouse primary antibody and ATTO 488 anti-mouse IgG (green) while Cytokeratin was stained with polyclonal rabbit anti-cytokeratin and ATTO 647N anti-rabbit IgG (red). C. HUVEC (Human umbilical vein endothelial cells) were stained with anti- Vimentin-ATTO 532 (green), anti-E-Cadherin-ATTO 655 (red) and DAPI (blue). D. Rat colon sections were stained with Anti-Aquaporin 3-ATTO 594 antibody. Hoechst 33342 (blue) is used as counterstain.



Western Blot

Western Blot of Mouse Anti-Akt pS473 antibody. Lane 1: unstimulated NIH/3T3 lysates contain inactive unphosphorylated Akt1, green band. Lane 2: PDGF stimulated NIH/3T3 lysate contains both inactive (green band) and activated phosphorylated Akt1 (red band). Load: 10 µg per lane. Primary antibody: rabbit anti-Akt (pan) and mouse anti-Akt pS473 specific antibodies at 1:400 for overnight at 4°C. Secondary antibody: DyLight™ 549 conjugated anti-rabbit IgG (green) and DyLight™ 649 conjugated anti-mouse IgG (red) secondary antibodies at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.



Western Blot

Western Blot of Mouse anti-AKT pS473 antibody Atto 594 Conjugated. Lane 1: GST Tagged AKT 1 Active Recombinant Protein. Lane 2: None. Load: 25 ng per lane. Primary antibody: None. Secondary antibody: Atto 594 mouse secondary antibody at 1:1,000 for 60 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: ~100 kDa, ~100 kDa for AKT pS473. Other band(s): None

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.