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Datasheet for 200-306-268

AKT phospho S473 Antibody Biotin Conjugated

Overview

Description:	Anti-AKT pS473 (MOUSE) Monoclonal Antibody Biotin Conjugated - 200-306-268
Item No.:	200-306-268
Size:	50 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Mouse, Rat, Monkey
Host Species:	Mouse

Product Details

Background:	AKT phospho 473 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-AKT pS473 (MOUSE) Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.
Synonyms:	mouse anti-AKT pS473 biotin conjugated Antibody, biotin conjugated mouse anti-AKT pS473 Antibody, phospho AKT, RAC-PK-alpha, Protein kinase B, PKB, C-AKT, RAC-alpha serine/threonine-protein kinase, Proto-oncogene c-Akt, AKT1, AKT 1, AKT-1, phospho AKT antibody, Anti-AKT pS473 Antibody Biotin Conjugated
Host Species:	Mouse
Conjugate:	Biotin
Clonality:	Monoclonal
Clone ID:	17F6.B11
Format:	IgG1
F/P Ratio:	10-20

Target Details

Gene Name:	AKT1
Reactivity:	Human, Mouse, Rat, Monkey
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-AKT pS473 (MOUSE) Monoclonal Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding S473 of human AKT1 protein.
Purity/Specificity:	Anti-AKT pS473 (MOUSE) Monoclonal Antibody Biotin Conjugated 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:	• UniProtKB - P31749 • GeneID - 207 • NCBI - 62241011

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Biotin Conjugated Anti-AKT pS473 (MOUSE) Monoclonal Antibody Biotin Conjugated is tested for ELISA, immunohistochemistry, immunoprecipitation and 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. For immunohistochemistry use formalin-fixed paraffin-embedded sections. 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:	1:20,000
FC:	User Optimized
IF:	1:500-1:3,000
IHC:	20 µg/mL

IP:	User Optimized
WB:	1:500-1:3,000

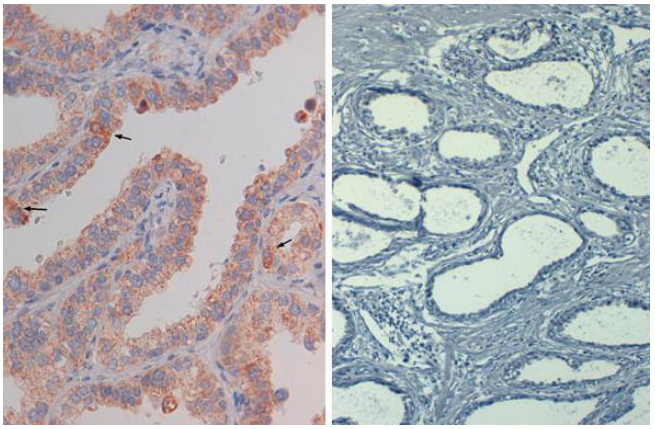
Formulation

Physical State:	Lyophilized
Concentration:	0.5 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 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

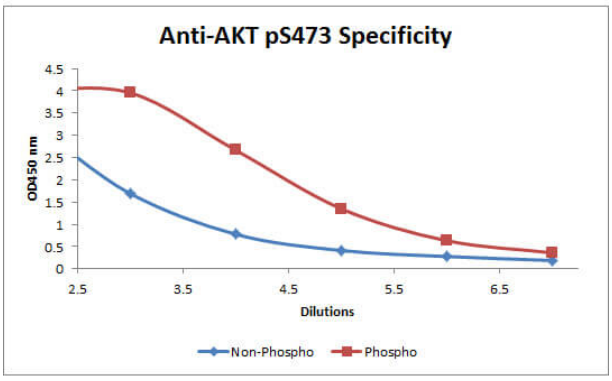
Shipping & Handling

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.

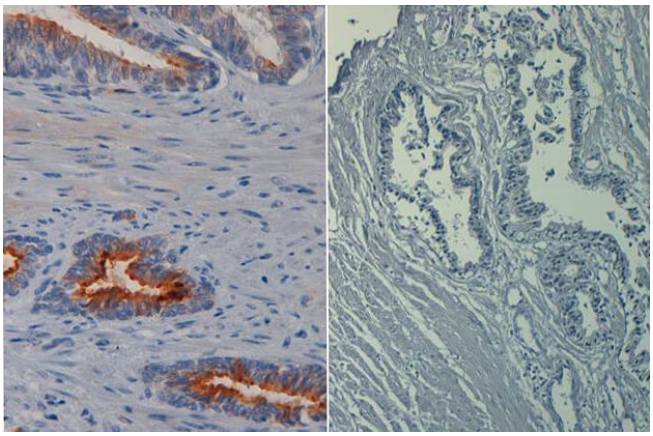
Images



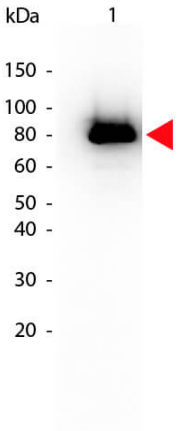
Immunohistochemistry
Immunohistochemistry of mouse Anti-AKT pS473 (MOUSE) Biotin Conjugated. Tissue: prostate at 40X. Fixation: FFPE buffered formalin 10% conc. Antigen retrieval: Heat, Citrate pH 6.2. Pressure Cooker, left. (pH 9 shown on right as negative control). Primary antibody: AKTsS473 biotin 20 µg/mL for 1 h at RT. Secondary antibody: Streptavidin Conj. HRP at 10 ug/ml. Localization: nuclear and occasionally cytoplasmic. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.



ELISA
ELISA of Mouse anti-Akt phospho S473 Biotin Conjugated antibody. Antigen: BSA conjugates of Akt phospho S473 and AKT non-phospho S473. Coating amount: 0.1 µg per well. Primary antibody: Akt phospho S473 Biotin Conjugated antibody at 5 µg/mL. Dilution series: 3-fold. Mid-point concentration: 5 ng/mL Akt phospho S473 Biotin Conjugated antibody. Secondary antibody: Peroxidase streptavidin secondary antibody at 1:10,000. Substrate: TMB (p/n TMBE-0100)



Immunohistochemistry
Immunohistochemistry of mouse anti AKT phospho S473 biotin conjugated. Tissue: prostate at 40X (left) with negative control (right). Fixation: FFPE buffered formalin 10% conc. Antigen retrieval: Heat, Citrate pH 6.2. Pressure Cooker. Primary antibody: AKT pS473 biotin at 20 µg/mL for 1 h at RT. Secondary antibody: Streptavidin Conj. HRP at 10 ug/ml. Localization: nuclear and occasionally cytoplasmic. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.



Western Blot
Western Blot of Mouse anti-Akt phospho S473 Biotin Conjugated antibody. Lane 1: GST tagged AKT1 active recombinant protein. Lane 2: none. Load: 25 ng per lane. Primary antibody: Akt phospho S473 Biotin Conjugated antibody at 1:1,000 for overnight at 4°C. Secondary antibody: HRP Streptavidin secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 79 kDa, 79 kDa for Akt phospho S473. Other band(s): none

Disclaimer

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