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Datasheet for 200-301-B26

AKT Antibody

Overview

Description:	Anti-AKT (MOUSE) Monoclonal Antibody - 200-301-B26
Item No.:	200-301-B26
Size:	1 mg
Applications:	ELISA, WB
Reactivity:	Mouse
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.
Synonyms:	mouse anti-AKT 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
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	14E5.16C8.25F6
Format:	IgG1

Target Details

Gene Name:	AKT1
Reactivity:	Mouse

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Akt monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues near the C terminal end of human AKT1 protein.
Purity/Specificity:	This antibody was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human and mouse AKT protein. A BLAST analysis was used to suggest cross-reactivity with AKT 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 • NCBI - 62241011 • GeneID - 207

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-AKT monoclonal antibody has been tested by ELISA and western blotting. This antibody is suitable in immunohistochemistry and immunoprecipitation. Expect a band approximately 56 kDa in size corresponding to AKT protein by western blotting in the appropriate cell lysate or extract. This monoclonal antibody reacts with human and mouse 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.
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
IHC:	20 ug/ml
WB:	1:500 - 1:3,000

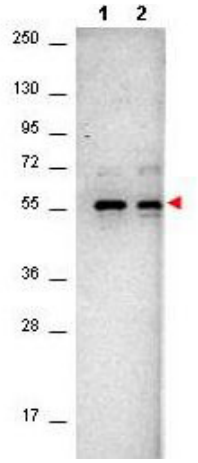
Formulation

Physical State:	Liquid (sterile filtered)
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store Akt Antibody 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 antibody 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-AKT antibody. Lane 1: unstimulated NIH/3T3 cell lysates (p/n W10-000-358). Lane 2: PDGF stimulated NIH/3T3 cell lysates (p/n W10-001-377). Load: 10 µg per lane. Primary antibody: AKT antibody at 1:400 for overnight at 4°C. Secondary antibody: HRP conjugated Gt-a-Mouse IgG (p/n 610-103-121) was used at a 1:40,000 dilution for 1 h at 4° C with FemtoMax™ enhanced chemiluminescent reagent (p/n FEMTOMAX-100). Block: 5% BLOTTO (p/n B501-0500) in TBS for 2h at RT. Observed size: ~56 kDa for AKT. Other band(s): none.

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