

Product datasheet for **TA396814S**

AKT1 Mouse Monoclonal Antibody [Clone ID: 14E5.A2.B2.H9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	14E5.A2.B2.H9
Applications:	ELISA, FC, IHC, WB
Recommended Dilution:	WB: 1:1000 IHC: 20 µg/mL FC: User Optimized ELISA: 1:2,000 - 1:10,000
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG2a, kappa
Clonality:	Monoclonal
Immunogen:	Anti-AKT1 Antibody was produced by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT1 protein.
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.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.0 mg/ml - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is one (1) year from date of receipt.
Database Link:	<u>P31749</u>



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Background:

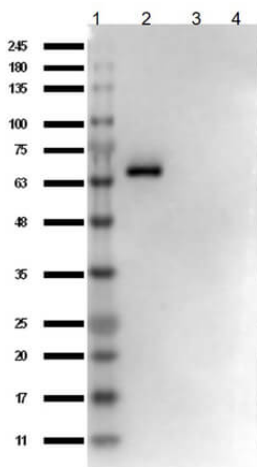
AKT1 Antibody detects AKT1 which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT 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 Antibody is ideal for investigators involved in Cell Signaling, Neuroscience and Signal Transduction research.

Synonyms:

mouse anti-AKT1 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

Note:

Anti-AKT1 Antibody has been tested in ELISA, flow cytometry, and western blotting. This antibody is suitable for immunoprecipitation and immunohistochemistry. 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.

Product images:


Western Blot of Mouse Anti-AKT1 Antibody. Lane 1: Opal Prestained Molecular Weight Protein (p/n MB-210-0500). Lane 2: AKT1 protein (p/n 009-001-P21). Lane 3: AKT2 protein (p/n 009-001-P22). Lane 4: AKT3 protein (p/n 009-001-P23). Load: 50ng. Blocking: BlockOut Buffer (p/n MB-073) for 30 min at RT. Primary Antibody: Anti-AKT1 at 1ug/mL o/n at 4°C. Secondary Antibody: Rabbit Anti-Mouse IgG HRP (p/n 610-403-C46, Lot 20121) at 1:40,000 in MB-073 for 30 min at RT.