

**DATASHEET**

**AKT Mouse Monoclonal Antibody(C3454)**

CAT. NO. AMA03066

**KEY FEATURES**

Target	AKT	Source / Host	Mouse
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB, IP	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.	Storage	at-20°C

**BACKGROUND**

AKT1 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis . This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates . Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported . AKT is responsible of the regulation of glucose uptake by mediating insulin-induced translocation of the SLC2A4/GLUT4 glucose transporter to the cell surface .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IP	1:10 - 1:50

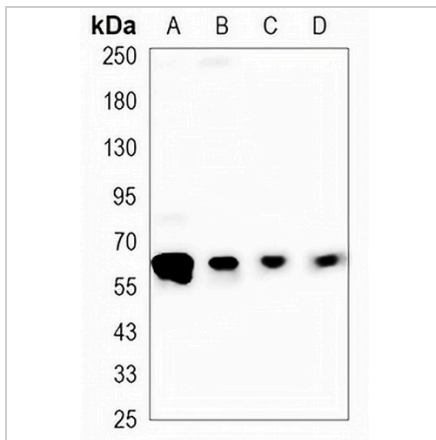
\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Mouse monoclonal antibody to AKT
Specificity	Recognizes endogenous levels of AKT protein.
Antibody Type	Primary antibody
Immunogen	Purified recombinant human AKT1 protein fragments expressed in E.coli.AKT1 interacts (via the C-terminus) with CCDC88A (via its C-terminus). Interacts with GRB10; the interaction leads to GRB10 phosphorylation thus promoting YWHAE-binding By similarity. Interacts with AGAP2 (isoform 2/PIKE-A); the interaction occurs in the presence of guanine nucleotides. Interacts with AKTIP. Interacts (via PH domain) with MTCP1, TCL1A AND TCL1B. Interacts with CDKN1B; the interaction phosphorylates CDKN1B promoting 14-3-3 binding and cell-cycle progression. Interacts with MAP3K5 and TRAF6. Interacts with BAD, PPP2R5B, STK3 and STK4. Interacts (via PH domain) with SIRT1. Interacts with SRPK2 in a phosphorylation-dependent manner. Interacts with RAF1. Interacts with TRIM13; the interaction ubiquitinates AKT1 leading to its proteasomal degradation. Interacts with TNK2 and CLK2. Interacts (via the C-terminus) with THEM4 (via its C-terminus). Interacts with and phosphorylated by PDPK1.AKT2 interacts (via PH domain) with MTCP1, TCL1A AND TCL1B. Interacts with CLK2, PBH2 and TRAF6. AKT3 interacts (via PH domain) with TCL1A; this enhances AKT3 phosphorylation and activation. Interacts with TRAF6.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 56 kD; Observed: 60 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	AKT1; PKB; RAC; RAC-alpha serine/threonine-protein kinase; Protein kinase B; PKB; Protein kinase B alpha; PKB alpha; Proto-oncogene c-Akt; RAC-PK-alpha; AKT2; RAC-beta serine/threonine-protein kinase; Protein kinase Akt-2; Protein kinase B beta; PKB beta; RAC-PK-beta; AKT3; PKBG; RAC-gamma serine/threonine-protein kinase; Protein kinase Akt-3; Protein kinase B gamma; PKB gamma; RAC-PK-

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**DATA**

Western blot analysis of AKT expression in NIH3T3 (A), 293T (B), PC12 (C), K562 (D) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 60 kD)

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.