

**DATASHEET**

**AKT Mouse Monoclonal Antibody(C2501)**

CAT. NO. AMA02113

**KEY FEATURES**

Target	AKT	Source / Host	Mouse
Reactivity	Human, Mouse, Rat, Monkey	Clonality	Monoclonal
Applications	WB, IF/ICC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	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
IF/ICC	1:100 - 1:500
FC	1:100 - 1:200

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

**PRODUCT OVERVIEW**

Description	Mouse monoclonal to AKT
Specificity	Recognizes endogenous levels of AKT protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human AKT expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 56 kD; Observed: 55 kD
Form/Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	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
Gene Symbol	AKT1
Entrez Gene	207(Human); 11651(Mouse); 24185(Rat)
SwissProt	P31749(Human); P31750(Mouse); P47196(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

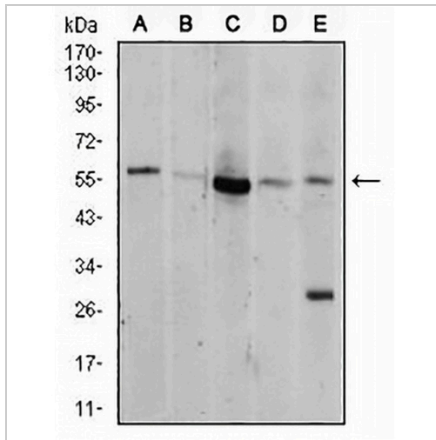
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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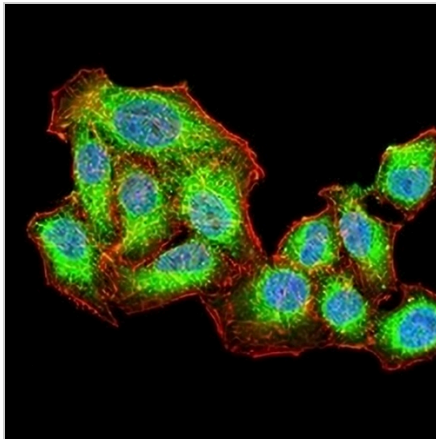
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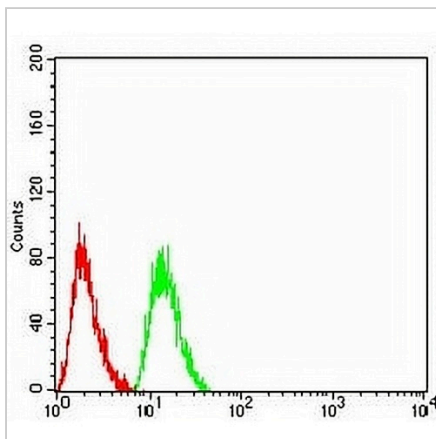
**DATA**



Western blot analysis of AKT expression in MCF7 (A), NIH/3T3 (B), HeLa (C), COS7 (D), C6 (E) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 55 kD)



Immunofluorescent analysis of AKT staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-AKT Antibody (green) and negative control (red).

**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.