

DATASHEET
AKT Rabbit Monoclonal Antibody(C3054)
CAT. NO. AMA02666
KEY FEATURES

| | | | |
|---------------|---|---------------|--------------|
| Target | AKT | Source / Host | Rabbit |
| Reactivity | Human, Mouse, Rat, Hamster, Zebrafish | Clonality | Monoclonal |
| Applications | WB, IHC, IF/ICC, IP | Conjugation | Unconjugated |
| Form / Buffer | Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA. | 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 |
| IHC | 1:50 - 1:100 |
| IF/ICC | 1:50 - 1:100 |
| IP | 1:10 - 1:50 |

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

PRODUCT OVERVIEW

| | |
|-------------------|--|
| Description | Rabbit monoclonal antibody to AKT |
| Specificity | Recognizes endogenous levels of AKT protein. |
| Antibody Type | Primary antibody |
| Immunogen | Recombinant protein of human AKT. The exact sequence is proprietary. |
| Purification | The antibody was purified by immunogen affinity chromatography. |
| Molecular Weight | Predicted: 55 kD; Observed: 55 kD |
| Form/Buffer | Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA. |
| 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-gamma; STK-2 |
| Gene Symbol | AKT1; AKT2; AKT3 |
| Entrez Gene | 207; 208; 10000(Human); 11651; 11652; 23797(Mouse); 24185; 25233; 29414(Rat) |
| SwissProt | P31749; P31751; Q9Y243(Human); P31750; Q60823; Q9WUA6(Mouse); P47196; P47197; Q63484(Rat) |

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

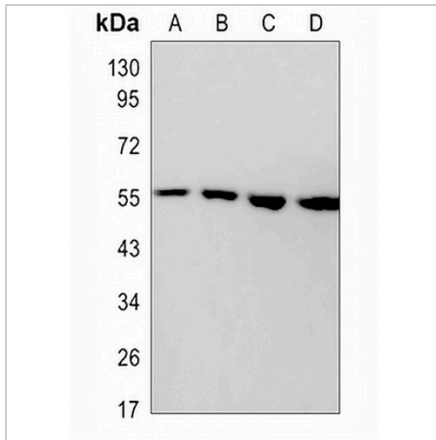
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

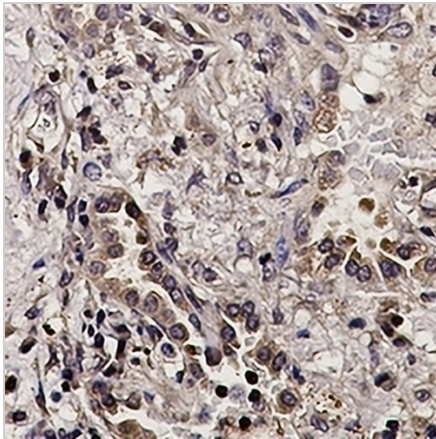
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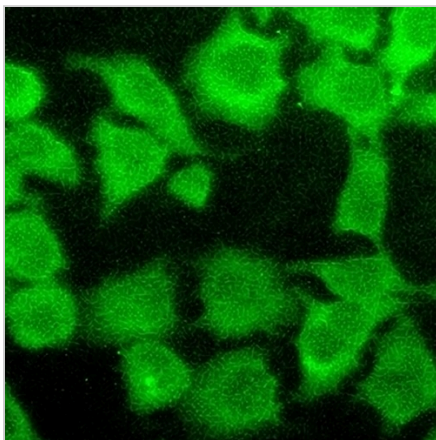
DATA



Western blot analysis of AKT expression in Hela (A), Jurkat (B), rat brain (C), CHO-K1 (D) whole cell lysates. (Predicted band size: 55 kD; Observed band size: 55 kD)



Immunohistochemical analysis of AKT staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of AKT staining in A549 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 a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark.

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.