

Akt. Mouse Monoclonal Antibody

Protein Kinase B, RAC-alpha, EC 2.7.11.1, RAC-PK-alpha, PKB, C-AKT

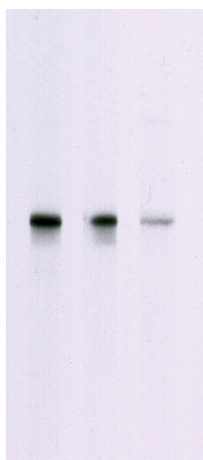
BACKGROUND

AKT is a serine/threonine kinase that plays an important role in multiple biological responses including metabolism, cell survival and growth by phosphorylating many proteins including GSK-3 β , caspase-9, BAD, and the Forkhead Transcription Factor. AKT is activated by PI3K, which in turn can interact with FAK and other cytoskeletal-associated proteins, thereby linking activation to the cytoskeleton. AKT/PKB is constitutively active in many types of human cancer, and contributes to tumor progression by promoting angiogenesis and cell invasiveness. AKT is fully activated by phosphorylation of threonine 308 by PDK1 and serine 473 by PDK2. The reactivity of this antibody with AKT2 and AKT3 has not been tested.

IMMUNOGEN

Recombinant human AKT1 protein.

Proteins from cell extracts of human Jurkat cells (lane 1), mouse 3T3-L1 cells (lane 2), and rat PC-12 cells (lane 3) were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this AKT monoclonal antibody (clone 9Q7) at a concentration of 1 μ g/mL for two hours at room temperature. After washing, the membranes were incubated with a goat F(ab')₂ anti-mouse IgG alkaline phosphatase conjugated antibody (Cat. # AMI4405) at a 1:2000 dilution. Bands were detected with CDP-substrate using the WesternStarTM method (Tropix) and Kodak BioMax film



ORDERING INFORMATION

CATALOG NUMBER
X1889M

SIZE

100 μ g

FORM

Unconjugated

HOST/CLONE

Mouse Clone 9Q7

FORMULATION

Provided as solution in phosphate buffered saline pH 7.2 with 0.1% BSA and 0.01% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE

IgG3

APPLICATIONS

Western Blot

SPECIES REACTIVITY

Human, Mouse, Rat others not tested

ACCESSION NUMBER

Human P31749

POSITIVE CONTROL/TISSUE EXPRESSION

Positive Control: Human Jurkat cells, mouse 3T3-L1 cells, and rat PC-12 cells.

Found in all human cell types so far analyzed. Found in the cytoplasm (and in the nucleus after activation by integrin-linked protein kinase 1)

COMMENTS

For Western blotting, the recommended concentration is 1 µg/mL. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Purified from ascites by affinity chromatography.

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

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4. Nelson, J.M. and D.W. Fry (2001) Akt, MAPK (Erk1/2), and p38 act in concert to promote apoptosis in response to ErbB receptor family inhibition. *J. Biol. Chem.* 276(18):14842-14847.
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7. del Peso, L., et al. (1997) Interleukin-3-induced phosphorylation of BAD through the protein kinase Akt. *Science* 278 (5338):687-689.
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PRODUCT SPECIFIC REFERENCES