

Anti-AKT2/3

Rabbit Polyclonal Antibody

Catalog # **A17-63BR**

Lot # D339-7

Cited Applications

- Western blot (1:1000)

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the AKT2 and AKT3 protein

Cross Reactivity

- Western blot AKT2 and AKT3 from human and mouse cells

AKT2 and AKT3 from other species may also be detectable

Host

Rabbit

Immunogen

Protein Code: P31751

Formulation

TBS, 50% glycerol

Stability

Store at 4°C (add 0.1% NaN₃) for several months, and at -20°C for longer periods. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles.

Scientific Background

AKT2 or Protein Kinase B β (PKB β) is a serine/threonine kinase that is a member of the AKT family. AKT2 like the other AKT members is activated in cells in response to diverse stimuli such as hormones, growth factors and extracellular matrix components and is involved in glucose metabolism, transcription, survival, cell proliferation, angiogenesis, and cell motility. The PI3K generates phosphatidylinositol-3,4,5-trisphosphate (PIP3), a lipid second messenger essential for the translocation of AKT2 to the plasma membrane where it is phosphorylated and activated by phosphoinositide-dependent kinase-1 (PDK-1).

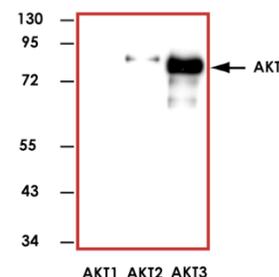
AKT 3 or Protein Kinase B γ (PKB γ) is a serine/threonine kinase that is a member of the AKT family. AKT 3 is activated in cells exposed to diverse stimuli such as hormones, growth factors, and extracellular matrix

components (3). AKT 3 phosphorylates and regulates the function of many cellular proteins involved in processes that include cellular metabolism, survival/apoptosis, and proliferation. Recent evidence indicates that AKT 3 is frequently overexpressed in many types of human cancers including breast and prostate (4).

References

1. Coffey, P.J. et al: Protein kinase B (c-Akt): a multifunctional mediator of phosphatidylinositol 3-kinase activation. *Biochem J.* 1998 Oct 1; 335 (Pt 1):1-13.
2. Anderson, K.E. et al: Translocation of PDK-1 to the plasma membrane is important in allowing PDK-1 to activate protein kinase B. *Curr Biol.* 1998 Jun 4;8(12): 684-91.
3. Coffey, P.J. et al: Protein kinase B (c-Akt): a multifunctional mediator of phosphatidylinositol 3-kinase activation. *Biochem J.* 1998 Oct 1; 335 (Pt 1): 1-13.
4. Anderson, K.E. et al: Translocation of PDK-1 to the plasma membrane is important in allowing PDK-1 to activate protein kinase B. *Curr Biol.* 1998 Jun 4;8(12): 684-91.

Sample Data



Representative western blot with Anti-AKT2/3 (1:1000) using 20 ng of human full length recombinant AKT1, AKT2, and AKT3.

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Specific Lot Number

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Purification

Affinity Chromatography

Concentration

1.0 μ g/ μ L

Stability

1 yr At -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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