

Anti-PKB β (Akt2)



TECHNICAL SPECIFICATIONS

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Rabbit Anti-PKB β (Akt2) Polyclonal Antibody Product #: KAP-PK008

Immunogen

A five residue synthetic peptide (ASIRE), based on the human PKB β (a.a. 477-481) was synthesized and the peptide coupled to KLH. The sequence is conserved among mouse, rat and *Xenopus* sequences.

Specificity

This immunoaffinity purified antibody detects an ~65kDa protein, corresponding to the apparent molecular mass of PKB β on SDS-PAGE immunoblots, in samples from human, mouse, rat, bovine, chicken, dog, guinea pig, hamster, monkey, pig, rabbit, sheep and *Xenopus* origins. This antibody does not react with PKB α (Akt1) or PKB γ (Akt3).

Species Reactivity

human, mouse, rat, bovine, chicken, dog, guinea pig, hamster, monkey, pig, rabbit, sheep, *Xenopus*

Applications

Certified*

Western Blot (ECL)	1:3,000
ELISA	0.25 μ g/mL

*These working dilutions are provided as suggestions only. Further dilutions may be possible. Each user should determine the optimal conditions for their own particular experiment.

Positive Control

HeLa Cell Lysate, Product #: LYC-HL100
Rat Brain Tissue Extract, Product#: LYT-RB100
Mouse Brain Tissue Extract, Product#: LYT-MB100

Scientific Background

Protein kinase B (PKB), also referred to as RAC (related to PKA and PKC kinase) and Akt1, is an ~59 kDa protein kinase which has a strong sequence homology with the catalytic domains of cAMP-dependent protein kinase and protein kinase C. PKB is the product of the Akt proto-oncogene. PKB features a Pleckstrin Homology domain that might be important for dimerization of the kinase, but the phosphorylation of a serine residue is critical for its activation. PKB is phosphorylated on Thr308 by PDK1 and on Ser473 by PDK2. Phosphorylation at Ser473 is required for full activation of PKB. PKB can be activated downstream of the mitogen-activated phosphatidylinositol 3-kinase. Myelin basic protein and histone H2B are *in vitro* substrates for PKB, while glycogen synthase kinase-3 has been implicated as a physiological target (2).

References

1. Jones, P.F., Jakubowicz, T., Pitossi, F.J., Maurer, F., Hemmings, B.A. (1991) Proc. Natl. Acad. Sci. USA 88: 4171-4175.
2. Hardie, G., Hanks, S. (1995) The Protein Kinase Facts Book, Protein-Serine Kinases Academic Press Limited, San Diego, CA 418pps.

Rev: 11/03/04

CERTIFICATE OF ANALYSIS

Anti-PKB β (Akt2)

Product #: KAP-PK008

Size: 100 μ g

Lot #: B410532

Format: Rabbit immunoglobulin in 0.1N Tris-acetate buffer, 0.1% sodium azide. This antibody was purified using affinity chromatography.

Concentration: 0.25 mg/mL

Host: Rabbit

Antibody Type: Polyclonal

Certification: 13,000 dilution of KAP-PK008 was sufficient for detection of PKB β in 20 μ g of HeLa cell lysate (product# LYC-HL100) by ECL immunoblot analysis.

Note: Stressgen makes every effort to provide a consistent source of high quality polyclonal antisera. However due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antisera is required throughout a study

STORAGE & SHIPPING: Store frozen product at or below -20°C. Thawed product may be stored for 2-4 weeks at 4°C. For optimal storage, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap. Shipped on gel packs.



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