

Polyclonal Antibody to AKT2 / PKB beta specific - Purified

Alternate names:	Protein kinase Akt-2, Protein kinase B beta, RAC-PK-beta, RAC-beta serine/threonine-protein kinase
Catalog No.:	AP03032PU-N
Quantity:	0.4 ml
Concentration:	0.25 mg/ml
Background:	Protein kinase B or Akt (PKB/Akt) is a serine/threonine kinase, which in mammals comprises three highly homologous members known as PKB alpha (Akt1), PKB beta (Akt2) and PKB gamma (Akt3). PKB/Akt is a growth-factor-regulated protein kinase which contains a Pleckstrin Homology (PH) domain which might be important for dimerization of the kinase. Binding of phosphoinositide 3-OH kinase products to the pleckstrin homology domain results in translocation of PKB/Akt to the plasma membrane where it is activated by phosphorylation by upstream kinases including the phosphoinositide-dependent kinase 1 (PDK1) and PDK2 (1-3). Myelin basic protein and histone H2B are in vitro substrates for PKB, while glycogen synthase kinase-3 has been implicated as a physiological target (4). Key roles for this enzyme can be found in cellular processes such as glucose metabolism, cell proliferation, apoptosis, transcription and cell migration (1-3).
Uniprot ID:	P31751
NCBI:	NP_001617.1
GeneID:	208
Host / Isotype:	Rabbit / IgG
Immunogen:	A five residue synthetic peptide based on the Human Akt2, coupled to KLH
Format:	State: Liquid purified Ig fraction Purification: Affinity Chromatography Buffer System: TBS Preservatives: 0.09% Sodium Azide Stabilizers: 50% Glycerol
Applications:	ELISA. Western blot (3): 1/13000 dilution of AP03032PU was sufficient for detection of PKB-beta in 20 µg of HeLa cell lysate by ECL immunoblot analysis. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This antibody detects a ~65kDa protein, corresponding to the Molecular Mass of Akt2 PKB beta on SDS-PAGE immunoblots. Does **not** react with PKB-alpha (Akt1) or PKB-gamma (Akt3).
Species: Human, Mouse, Rat, Bovine, Chicken, Dog, Guinea pig, Hamster, Monkey, Pig, Rabbit, Sheep, Xenopus.
Other species not tested.
- Storage:** Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.
- General Readings:** 1. Downward J (1998). *Curr Opin Cell Biol.* 10(2): 262-7.
2. Brazil DP, and Hemmings BA (2001). *Biochem Sci.* 26(11):657-64.
3. Nicholson KM, Anderson NG (2002). *Cell Signal.* 14(5): 381-95.
4. Hardie, G., Hanks, S. (1995). *The Protein Kinase Facts Book, Protein-Serine Kinases* Academic Press Limited, San Diego, CA 418pps.
- Pictures:** Western blot analysis of AKT2 (PKBbeta) in cell line mix using a 1:1000 dilution of the antibody

