

**Akt2 (PKB beta) Antibody**  
Catalog # ASM10401**Specification**

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**Akt2 (PKB beta) Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P31751</a>
Other Accession	<a href="#">NP_001617.1</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Bovine, Xenopus, Dog, Sheep, Guinea Pig</b>
Clonality	<b>Polyclonal</b>

**Description**

Rabbit Anti-Human Akt2 (PKB beta) Polyclonal

**Target/Specificity**Detects ~65kDa. Does not react with PKB $\alpha$  (Akt1) or PKB $\gamma$  (Akt3).**Other Names**

AKT2 Antibody, PKB Antibody, PKB beta Antibody, PRKBB Antibody, protein kinase Akt2 Antibody, RAC BETA Antibody

**Immunogen**

A five residue synthetic peptide based on the human Akt2, coupled to KLH

**Purification**

Protein A Purified

Storage **-20°C****Storage Buffer**

TBS, 50% glycerol, 0.09% sodium azide

Shipping Temperature **Blue Ice or 4°C****Certificate of Analysis**A 1:3000 dilution of SPC-148 was sufficient for detection of PKB $\beta$  in 20  $\mu$ g of HeLa cell lysate by ECL immunoblot analysis.**Cellular Localization**

Cytoplasm | Nucleus | Cell Membrane

**Akt2 (PKB beta) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Akt2 (PKB beta) Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-AKT2 Polyclonal Antibody (ASM10401). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-AKT2 Polyclonal Antibody (ASM10401) at 1:25 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-AKT2 Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western blot analysis of multiple Cell line lysates showing detection of AKT2 protein using Rabbit Anti-AKT2 Polyclonal Antibody (ASM10401). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-AKT2 Polyclonal Antibody (ASM10401) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.

### Akt2 (PKB beta) Antibody - 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).

### Akt2 (PKB beta) Antibody - References

1. Downward J. (1998). *Curr Opin Cell Biol.* 10(2): 262-7.
2. Brazil D.P., and Hemmings B.A. (2001). *Biochem Sci.* 26(11):657-64.
3. Nicholson K.M., Anderson N.G. (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.*