Anti-Phospho-Thr$^{342}$ AKT Antibody

**Catalog #:** p104-342 **Size:** 100 µl

**Cite this Antibody:** PhosphoSolutions Cat# p104-342, RRID:AB_2492036

**Host** | **Applications** | **Species Tested** | **Species Reactivity** | **Molecular Reference**  
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Rabbit | WB | 1:500 | D | ~68 kDa

**Product Description:** Affinity purified rabbit polyclonal antibody.

**Biological Significance** The serine/threonine kinase Akt also known as protein kinase B (PKB) or Rac, plays a crucial role in controlling many diverse and important cellular functions such as cell survival and glycogen metabolism (Hajduch et al., 2001 and Nicholson & Anderson, 2002). Three isoforms (α, β, and γ) have been identified that can be activated rapidly in response to insulin and growth factors in a phosphoinositide 3-kinase (PI3K)-dependent fashion (Hajduch et al., 2003). Phosphorylation of Akt occurs at two specific regulatory sites in Drosophila, one localized in the kinase domain, Thr$^{342}$, and the other in the C-terminal regulatory domain, Ser$^{505}$: these two activation sites are homologous to mammalian Ser$^{473}$ and Thr$^{308}$ respectively (Powell et al., 2004).

**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr$^{342}$ of *Drosophila* AKT.

**Antibody Specificity:** Specific for endogenous levels of the ~68 kDa AKT protein phosphorylated at Thr$^{342}$. Immunolabeling is completely eliminated with λ-phosphatase treatment. It has been reported that this antibody may also recognize some level of phosphorylated S6K as there is 67% homology with the sequence used as antigen.

**Purification Method:** Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

**Quality Control Tests:** Western blots performed on each lot.

**Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

**Storage and Stability:** Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

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Product Specific References:


General References:


