

**Akt1 (phospho Thr72) rabbit pAb****Cat#: orb768035 (Manual)**

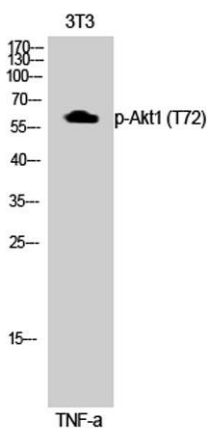
For research use only. Not intended for diagnostic use.

<b>Product Name</b>	Akt1 (phospho Thr72) rabbit pAb
<b>Host species</b>	Rabbit
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Species Cross-Reactivity</b>	Human;Mouse;Rat
<b>Recommended dilutions</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications.
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Akt around the phosphorylation site of Thr72. AA range:38-87
<b>Specificity</b>	Phospho-Akt1 (T72) Polyclonal Antibody detects endogenous levels of Akt1 protein only when phosphorylated at T72.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
<b>Storage</b>	Store at -20°C. Avoid repeated freeze-thaw cycles.
<b>Protein Name</b>	RAC-alpha serine/threonine-protein kinase
<b>Gene Name</b>	AKT1
<b>Cellular localization</b>	Cytoplasm . Nucleus . Cell membrane . Nucleus after activation by integrin-linked protein kinase 1 (ILK1). Nuclear translocation is enhanced by interaction with TCL1A. Phosphorylation on Tyr-176 by TNK2 results in its localization to the cell membrane where it is targeted for further phosphorylations on Thr-308 and Ser-473 leading to its activation and the activated form translocates to the nucleus. Colocalizes with WDFY2 in intracellular vesicles (PubMed:16792529). .

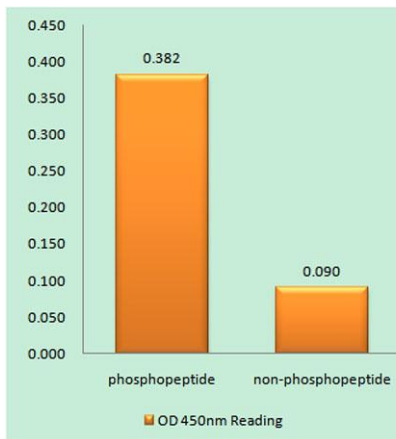
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal
<b>Concentration</b>	1 mg/ml
<b>Observed band</b>	56kD
<b>Human Gene ID</b>	207
<b>Human Swiss-Prot Number</b>	P31749
<b>Alternative Names</b>	AKT1; PKB; RAC; RAC-alpha serine/threonine-protein kinase; Protein kinase B; PKB; Protein kinase B alpha; PKB alpha; Proto-oncogene c-Akt; RAC-PK-alpha

**Background**

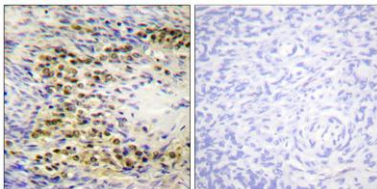
The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Mutations in this gene have been associated with the Proteus syndrome. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2011]



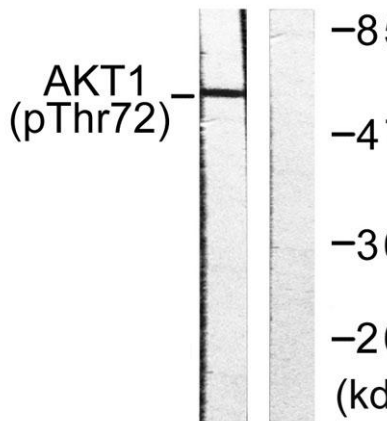
**Western Blot analysis of 3T3 cells using Phospho-Akt1 (T72) Polyclonal Antibody**



**Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Akt (Phospho-Thr72) Antibody**



**Immunohistochemistry analysis of paraffin-embedded human ovary, using Akt (Phospho-Thr72) Antibody. The picture on the right is blocked with the phosphopeptide.**



**Western blot analysis of lysates from NIH/3T3 cells treated with TNF- $\alpha$  20ng/ml 30', using Akt (Phospho-Thr72) Antibody. The lane on the right is blocked with the phosphopeptide.**