



Akt (phospho Ser473) rabbit pAb

Cat No.:ES1255

For research use only

Overview

Product Name	Akt (phospho Ser473) rabbit pAb
Host species	Rabbit
Applications	IF;WB;IHC;ELISA
Species Cross-Reactivity	Human;Mouse;Rat;Chicken
Recommended dilutions	IF: 1:50-200 Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.
Immunogen	The antiserum was produced against synthesized peptide derived from human Akt around the phosphorylation site of Ser473. AA range:431-480
Specificity	Phospho-Akt (S473) Polyclonal Antibody detects endogenous levels of Akt protein only when phosphorylated at S473.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	RAC-alpha serine/threonine-protein kinase/RAC-beta serine/threonine-protein kinase/RAC-gamma serine/threonine-protein kinase
Gene Name	AKT1/AKT2/AKT3
Cellular localization	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) .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.





Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	56kD
Human Gene ID	207/208/10000
Human Swiss-Prot Number	P31749/P31751/Q9Y243
Alternative Names	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; AKT2; RAC-beta serine/threonine-protein kinase; Protein kinase Akt-2; Protein kinase B

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]

