

## Basic Information

<b>Product Name</b>	Anti-AKT1 Antibody	
<b>Gene Name</b>	AKT1	
<b>Source</b>	Rabbit	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, ICC/IF, IP	
<b>Contents</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.	
<b>Immunogen</b>	A synthesized peptide derived from human AKT1 Akt, also referred to as PKB or Rac, plays a critical role in controlling survival and apoptosis. This protein kinase is activated by insulin and various growth and survival factors to function in a wortmannin-sensitive pathway involving PI3 kinase. Akt is activated by phospholipid binding and activation loop phosphorylation at Thr308 by PDK1 and by phosphorylation within the carboxy terminus at Ser473.	
<b>concentration</b>	500 ug/ml	
<b>Purification</b>	Affinity-chromatography	
<b>Observed MW</b>	56-60KD	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry in paraffin section (IHC):	1:20-100
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:20-100
	Immunoprecipitation:	1:20

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

RAC-alpha serine/threonine-protein kinase is an enzyme that in humans is encoded by the AKT1 gene. 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.

## Reference

Anti-AKT1 Antibody被引用在4文献中。

## Selected Validation Data

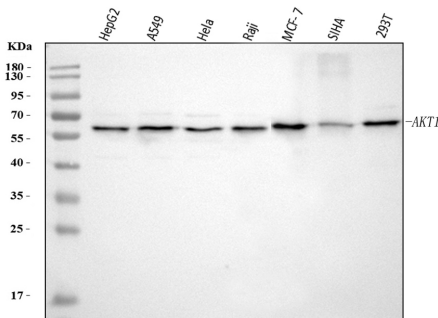


Figure 1. Western blot analysis of anti- AKT1 antibody (BM4390).  
The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: HEPG2 whole cell lysates,  
Lane 2: A549 whole cell lysates,  
Lane 3: HELA whole cell lysates,  
Lane 4: Raji whole cell lysates,  
Lane 5: MCF-7 whole cell lysates,  
Lane 6: SIHA whole cell lysates,  
Lane 7: 293T whole cell lysates.

Use rabbit Anti-AKT1 1:1000, probed with a goat Anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for AKT1 at approximately 60KD. The expected band size for AKT1 is at 56KD.