

Basic Information

Product Name	Anti-AKT1 (Phospho-T450) Antibody	
Gene Name	AKT1	
Source	Rabbit	
Clonality	Monoclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, IP	
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
Immunogen	A synthesized peptide derived from human AKT1	
Concentration	500 ug/ml	
Purification	Affinity-chromatography	
Observed MW	65 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-200
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-200
	ImmunoPrecipitation (IP):	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 (Phospho-T450) Antibody被引用在15文献中。

Selected Validation Data

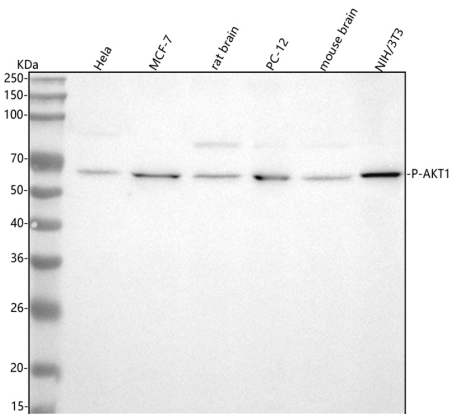


Figure 1. Western blot analysis of anti-AKT1 antibody (BM4721).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human MCF-7 whole cell lysates,

Lane 3: rat brain tissue lysates,

Lane 4: rat PC-12 whole cell lysates,

Lane 5: mouse brain tissue lysates,

Lane 6: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-AKT1 antigen

affinity purified monoclonal antibody (BM4721) at a dilution of

1:1000 and probed with a goat anti-rabbit IgG-HRP secondary

antibody (Catalog # BA1054). The signal is developed using ECL

Plus Western Blotting Substrate (Catalog # AR1197). A specific

band was detected for AKT1 at approximately 65 kDa. The expected

band size for AKT1 is at 56 kDa.

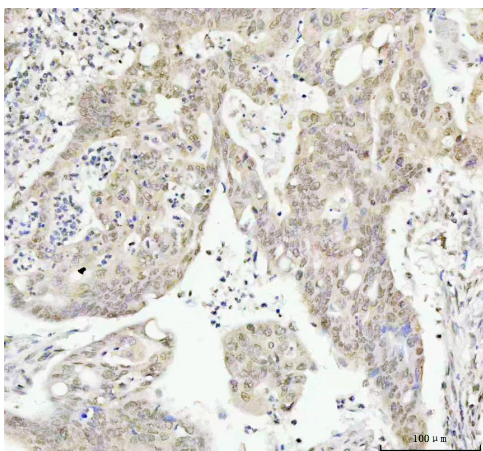


Figure 2. IHC analysis of AKT1 using anti-AKT1 antibody (BM4721).

AKT1 was detected in a paraffin-embedded section of human

colorectal adenocarcinoma tissue. The tissue section was incubated

with rabbit anti-AKT1 Antibody (BM4721) at a dilution of 1:200 and

developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit

(Catalog # SV0002) with DAB (Catalog # AR1022) as the

chromogen.

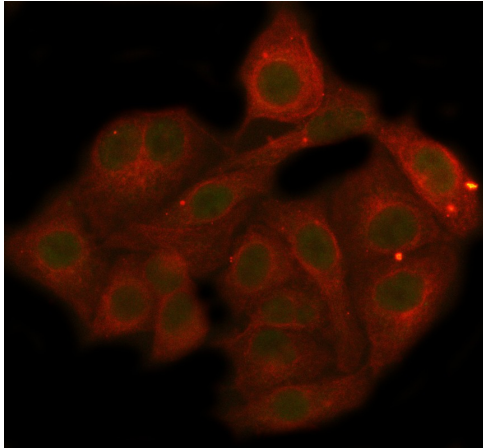


Figure 6. IF analysis of AKT1 using anti-AKT1 antibody (BM4721) and anti-Beta Tubulin antibody (M01857-3).

AKT1 was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-AKT1 Antibody (BM4721) at a dilution of 1:100. Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and Cy3-conjugated Anti-mouse IgG Secondary Antibody (red)(Catalog#BA1031) were used as secondary antibody.