

Basic Information

Product Name	Anti-AKT1 Antibody (Clone#OTI4D6)
Gene Name	AKT1
Source	Mouse
Clonality	Monoclonal
Isotype	IgG1
Species Reactivity	human, mouse, rat, dog, monkey
Tested Application	WB, IHC, ICC/IF, FCM
Contents	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Immunogen	Full length human recombinant protein of human AKT1(NP_005154) produced in HEK293T cell.
Concentration	500 ug/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Observed MW	56 kDa
Dilution Ratios	Western blot (WB): 1:500~2000 Immunohistochemistry (IHC): 1:150 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:100 Flow cytometry (FCM): 1:100

Storage

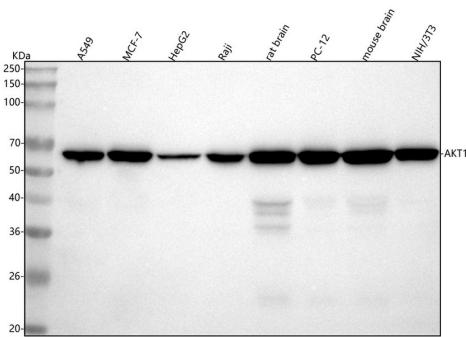
Stable for 12 months from date of receipt. Store at -20°C as received.

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.

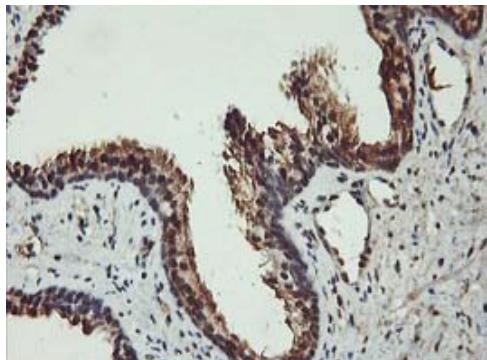
Selected Validation Data



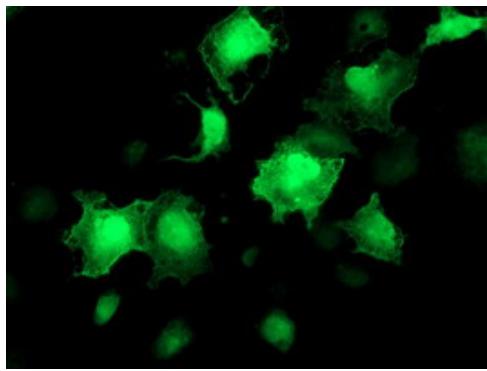
Western blot analysis of anti-AKT1 antibody (M00024). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A549 whole cell lysates,
 Lane 2: human MCF-7 whole cell lysates,
 Lane 3: human HepG2 whole cell lysates,
 Lane 4: human Raji whole cell lysates,
 Lane 5: rat brain tissue lysates,
 Lane 6: rat PC-12 whole cell lysates,
 Lane 7: mouse brain tissue lysates,
 Lane 8: mouse NIH/3T3 whole cell lysates.

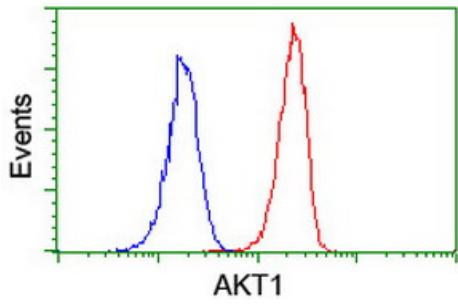
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-AKT1 antigen affinity purified monoclonal antibody (M00024) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for AKT1 at approximately 56 kDa. The expected band size for AKT1 is at 56 kDa.



Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-AKT1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, M00024)



Anti-AKT1 mouse monoclonal antibody immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY AKT1 .



Flow cytometric Analysis of Jurkat cells, using anti-AKT1 antibody, (Red), compared to a nonspecific negative control antibody, (Blue).