

## Product datasheet for **CF504233**

### **AKT1 Mouse Monoclonal Antibody [Clone ID: OTI3B4]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	OTI3B4
<b>Applications:</b>	FC, IF, IHC, WB
<b>Recommended Dilution:</b>	WB 1:500~2000, IHC 1:150, IF 1:100, FLOW 1:100
<b>Reactivity:</b>	Human, Dog, Rat, Monkey, Mouse
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Full length human recombinant protein of human AKT1(NP_005154) produced in HEK293T cell.
<b>Formulation:</b>	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
<b>Reconstitution Method:</b>	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
<b>Purification:</b>	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	AKT serine/threonine kinase 1
<b>Database Link:</b>	<a href="#">NP_005154</a> <a href="#">Entrez Gene 11651 Mouse</a> <a href="#">Entrez Gene 24185 Rat</a> <a href="#">Entrez Gene 490878 Dog</a> <a href="#">Entrez Gene 697747 Monkey</a> <a href="#">Entrez Gene 207 Human</a> <a href="#">P31749</a>



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**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. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq]

**Synonyms:**

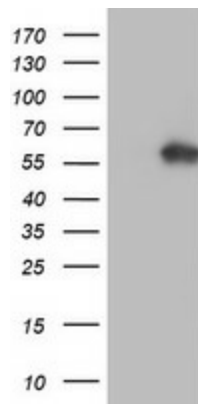
AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

**Protein Families:**

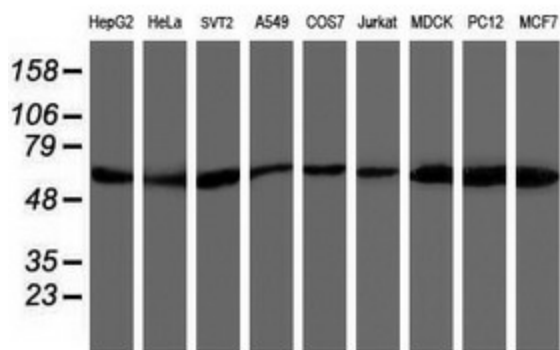
Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

**Protein Pathways:**

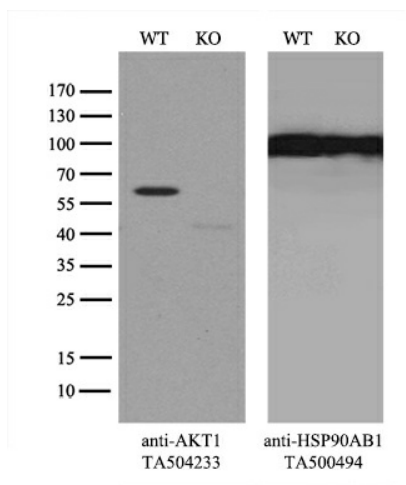
Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway

**Product images:**

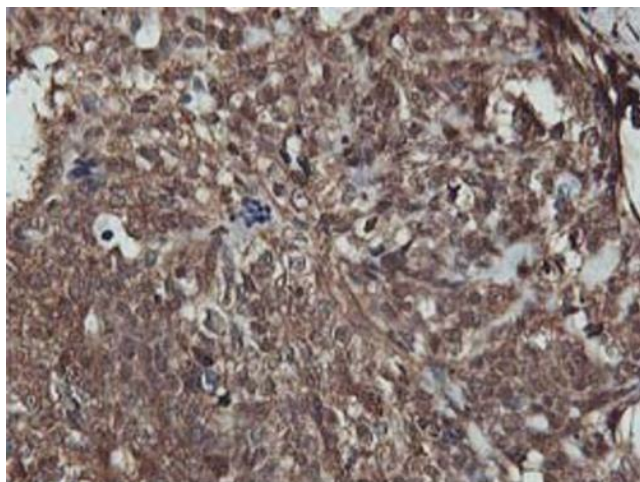
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY AKT1 ([RC220257], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AKT1. Positive lysates [LY401580] (100ug) and [LC401580] (20ug) can be purchased separately from OriGene.



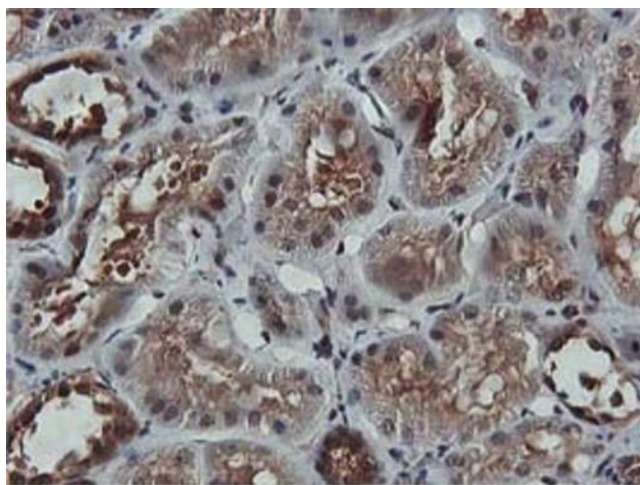
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-AKT1 monoclonal antibody.



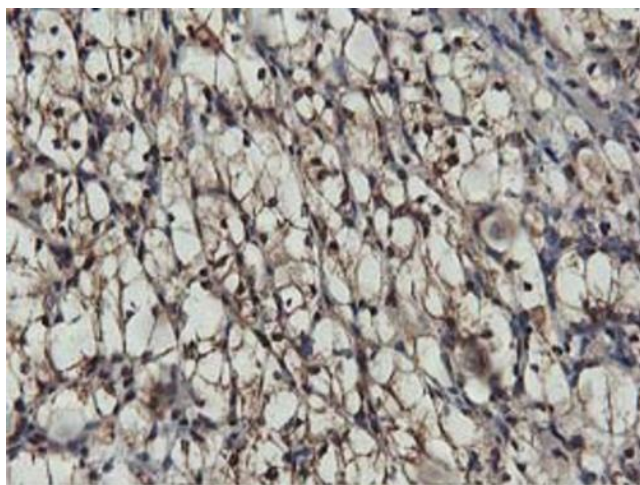
Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and AKT1-Knockout HeLa cells (KO, Cat# [LC810007]) were separated by SDS-PAGE and immunoblotted with anti-AKT1 monoclonal antibody [TA504233], (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control.



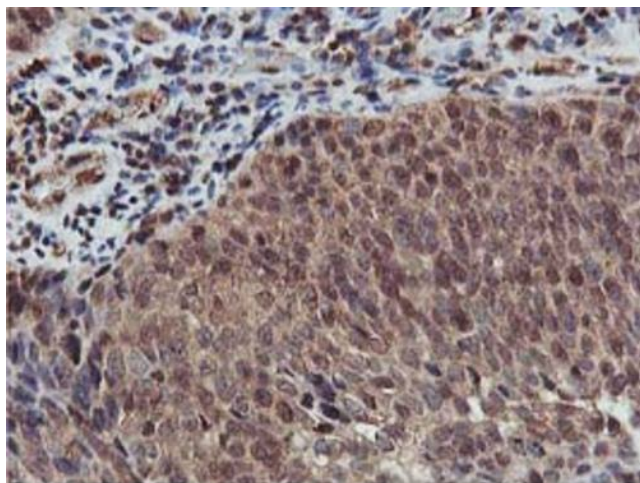
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-AKT1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



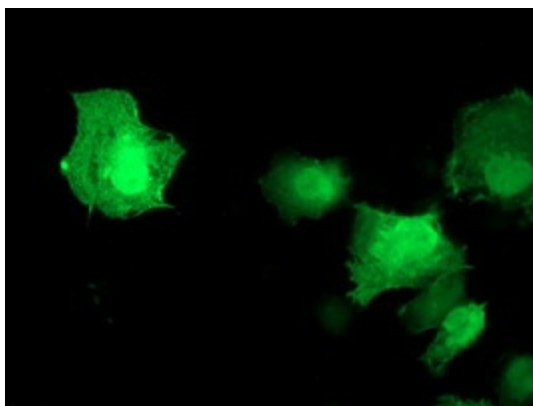
Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-AKT1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



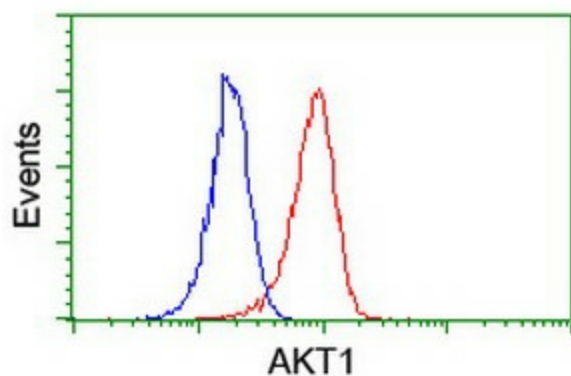
Immunohistochemical staining of paraffin-embedded Carcinoma of Human kidney tissue using anti-AKT1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human bladder tissue using anti-AKT1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-AKT1 mouse monoclonal antibody ([TA504233]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY AKT1 ([RC220257]).



Flow cytometric Analysis of Jurkat cells, using anti-AKT1 antibody ([TA504233]), (Red), compared to a nonspecific negative control antibody, (Blue).