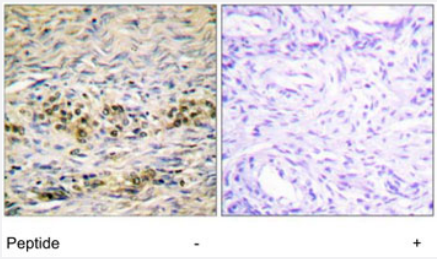
# AKT1 polyclonal antibody

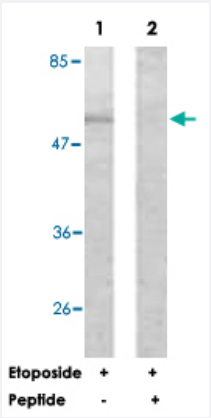
Catalog # PAB18072 Size 100 ug

## Applications




### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemistry analysis of paraffin-embedded human ovary tissue using AKT1 polyclonal antibody (Cat # PAB18072).
Peptide "+" means "with peptide blocking".




### Western Blot (Cell lysate)

Western blot analysis of extracts from HeLa cells, treated with Etoposide (25 uM, 24 hours), using AKT1 polyclonal antibody (Cat # PAB18072).
Peptide "+" means "with peptide blocking".

## Specification

| | |
|---|---|
| **Product Description** | Rabbit polyclonal antibody raised against synthetic peptide of AKT1. |
| **Immunogen** | A synthetic peptide corresponding to residues surrounding S246 of human AKT1. |
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse, Rat |
| **Specificity** | This antibody is specific to AKT1. |
| **Form** | Liquid |

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| | |
|---|---|
| **Recommend Usage** | Western Blot (1:500~1:1000)<br>Immunohistochemistry (1:50~1:100)<br>ELISA(1:5000)<br>The optimal working dilution should be determined by the end user. |
| **Storage Buffer** | In PBS, 150mM NaCl, pH 7.4 (50% glycerol, 0.02% sodium azide) |
| **Storage Instruction** | Store at -20°C.<br>Aliquot to avoid repeated freezing and thawing. |
| **Note** | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only. |

## Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunohistochemistry analysis of paraffin-embedded human ovary tissue using AKT1 polyclonal antibody (Cat # PAB18072).
  Peptide "+" means "with peptide blocking".

- Immunohistochemistry

- Enzyme-linked Immunoabsorbent Assay

- Western Blot (Cell lysate)

  Western blot analysis of extracts from HeLa cells, treated with Etoposide (25 uM, 24 hours), using AKT1 polyclonal antibody (Cat # PAB18072).
  Peptide "+" means "with peptide blocking".

## Gene Info — AKT1

| | |
|---|---|
| **Entrez GeneID** | 207 |
| **Protein Accession#** | P31749 |
| **Gene Name** | AKT1 |
| **Gene Alias** | AKT, MGC99656, PKB, PKB-ALPHA, PRKBA, RAC, RAC-ALPHA |
| **Gene Description** | v-akt murine thymoma viral oncogene homolog 1 |
| **Omim ID** | 164730 181500 |
| **Gene Ontology** | Hyperlink |

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| | |
|---|---|
| **Gene Summary** | 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 phosphatidyl inositol 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 |
| **Other Designations** | RAC-alpha serine/threonine-protein kinase\|murine thymoma viral (v-akt) oncogene homolog-1\|protein kinase B\|rac protein kinase alpha |

## Publication Reference

- MDM2 is required for suppression of apoptosis by activated Akt1 in salivary acinar cells.

  Limesand KH, Schwertfeger KL, Anderson SM.

  Molecular and Cellular Biology 2006 Dec; 26(23):8840.

  Application: WB-Ti, Mouse, Salivary glands

- Akt1 in the cardiovascular system: friend or foe?

  O'Neill BT, Abel ED.

  The Journal of Clinical Investigation 2005 Aug; 115(8):2059.

  Application: WB, Human, Human mammalian cells

- Protein kinase B alpha/Akt1 regulates placental development and fetal growth.

  Yang ZZ, Tschopp O, Hemmings-Mieszczak M, Feng J, Brodbeck D, Perentes E, Hemmings BA.

  The Journal of Biological Chemistry 2003 Aug; 278(34):32124.

  Application: IHC-P, WB, Mouse, Placenta, Tissus

## Pathway

- Acute myeloid leukemia
- Adipocytokine signaling pathway
- Apoptosis
- B cell receptor signaling pathway
- Chemokine signaling pathway

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- 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
- Prostate cancer
- Renal cell carcinoma
- Small cell lung cancer
- T cell receptor signaling pathway
- Tight junction
- Toll-like receptor signaling pathway
- VEGF signaling pathway

## Disease

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- Adenocarcinoma
- Alzheimer disease
- Amphetamine-Related Disorders
- Atherosclerosis
- Basal Ganglia Diseases
- Bipolar Disorder
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Cognition
- Colonic Neoplasms
- Colorectal Neoplasms
- Coronary Artery Disease
- Depressive Disorder
- Diabetes Complications
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Dominance
- Drug Toxicity
- Dyskinesia
- Edema
- Endometrial Neoplasms
- Endometriosis
- Esophageal Neoplasms

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- Genetic Predisposition to Disease
- HIV Infections
- Leukemia
- Liver Cirrhosis
- Lung Neoplasms
- Memory
- Metabolic Syndrome X
- Necrosis
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Neuropsychological Tests
- Obesity
- Osteoporosis
- Ovarian Failure
- Ovarian Neoplasms
- Parkinson disease
- Polycystic Ovary Syndrome
- Precursor T-Cell Lymphoblastic Leukemia-Lymphoma
- Prostatic Neoplasms
- Psychiatric Status Rating Scales
- Psychoses
- Psychotic Disorders
- Puberty
- Pulmonary Disease
- Rectal Neoplasms

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- Retinal Neoplasms
- Retinoblastoma
- Schizophrenia
- Space Perception
- Thrombophilia
- Thyroid Neoplasms
- Tobacco Use Disorder
- Tuberculosis
- Urinary Bladder Neoplasms
- Verbal Learning
- Werner syndrome

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