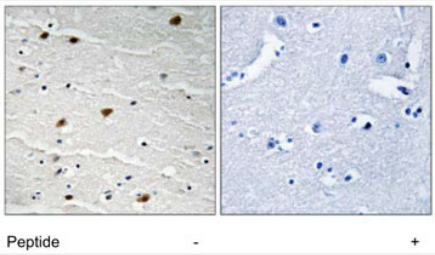
# AKT1 polyclonal antibody

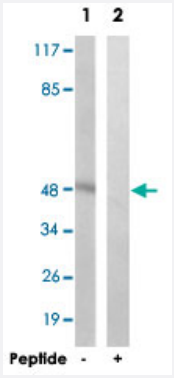
Catalog # PAB18078 Size 100 ug

## Applications




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

Immunohistochemistry analysis of paraffin-embedded human brain tissue using AKT1 polyclonal antibody (Cat # PAB18078).
Peptide "+" means "with peptide blocking".




### Western Blot (Cell lysate)

Western blot analysis of extracts from A-549 cells, using AKT1 polyclonal antibody (Cat # PAB18078).
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 Y312, Y315 and Y316 of human AKT1. |
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse, Rat |
| **Specificity** | This antibody is specific to AKT1/2/3. |
| **Form** | Liquid |

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| | |
|---|---|
| **Recommend Usage** | Western Blot (1:500~1:1000)<br>Immunohistochemistry (1:50~1:100)<br>ELISA(1:40000)<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 brain tissue using AKT1 polyclonal antibody (Cat # PAB18078). Peptide "+" means "with peptide blocking".

- Immunohistochemistry

- Enzyme-linked Immunoabsorbent Assay

- Western Blot (Cell lysate)

  Western blot analysis of extracts from A-549 cells, using AKT1 polyclonal antibody (Cat # PAB18078). 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


- The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC).

  Gerhard DS, Wagner L, Feingold EA, Shenmen CM, Grouse LH, Schuler G, Klein SL, Old S, Rasooly R, Good P, Guyer M, Peck AM, Derge JG, Lipman D, Collins FS, Jang W, Sherry S, Feolo M, Misquitta L, Lee E, Rotmistrovsky K, Greenhut SF, Schaefer CF, Buetow K, Bonner TI, Haussler D, Kent J, Kiekhaus M, Furey T, Brent M, Prange C, Schreiber K, Shapiro N, Bhat NK, Hopkins RF, Hsie F, Driscoll T, Soares MB, Casavant TL, Scheetz TE, Brown-stein MJ, Usdin TB, Toshiyuki S, Carninci P, Piao Y, Dudekula DB, K

  Genome Research 2004 Oct; 14(10B):2121.

- Isolation and characterization of the human AKT1 gene, identification of 13 single nucleotide polymorphisms (SNPs), and their lack of association with Type II diabetes.

  Matsubara A, Wasson JC, Donelan SS, Welling CM, Glaser B, Permutt MA.

  Diabetologia 2001 Jul; 44(7):910.

- Molecular cloning and identification of a serine/threonine protein kinase of the second-messenger subfamily.

  Jones PF, Jakubowicz T, Pitossi FJ, Maurer F, Hemmings BA.

  PNAS 1991 May; 88(10):4171.


## Pathway

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

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

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## Disease

- 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

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- Endometriosis
- Esophageal Neoplasms
- 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

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

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