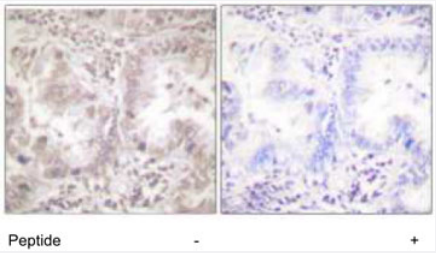
AKT1 polyclonal antibody

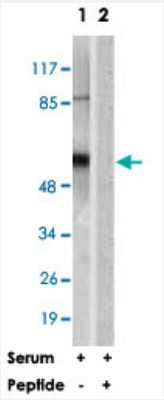
Catalog # PAB18070 Size 100 ug

Applications



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

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using AKT1 polyclonal antibody (Cat # PAB18070).
Peptide "+" means "with peptide blocking".



Western Blot (Cell lysate)

Western blot analysis of extracts from NIH/3T3 cells, treated with Serum (10 %, 30 mins), using AKT1 polyclonal antibody (Cat # PAB18070).
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 T450 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) Immunohistochemistry (1:50~1:100) ELISA(1:5000) 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. 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)

  Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using AKT1 polyclonal antibody (Cat # PAB18070).
  Peptide "+" means "with peptide blocking".

- Immunohistochemistry

- Enzyme-linked Immunoabsorbent Assay

- Western Blot (Cell lysate)

  Western blot analysis of extracts from NIH/3T3 cells, treated with Serum (10 %, 30 mins), using AKT1 polyclonal antibody (Cat # PAB18070).
  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

- Akt1 signaling regulates integrin activation, matrix recognition, and fibronectin assembly.

  Somanath PR, Kandel ES, Hay N, Byzova TV.

  The Journal of Biological Chemistry 2007 Jun; 282(31):22964.

- Akt1 governs breast cancer progression in vivo.

  Ju X, Katiyar S, Wang C, Liu M, Jiao X, Li S, Zhou J, Turner J, Lisanti MP, Russell RG, Mueller SC, Ojeifo J, Chen WS, Hay N, Pestell RG.

  PNAS 2007 Apr; 104(18):7438.

- Akt1 is required for physiological cardiac growth.

  DeBosch B, Treskov I, Lupu TS, Weinheimer C, Kovacs A, Courtois M, Muslin AJ.

  Circulation 2006 Apr; 113(17):2097.

Pathway

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

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- 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

- Adenocarcinoma

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- 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
- Genetic Predisposition to Disease

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- 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
- Retinal Neoplasms

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

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