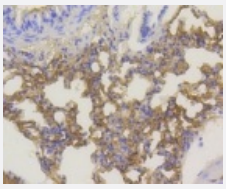
RecomAb™

AKT1 (phospho S473) recombinant monoclonal antibody

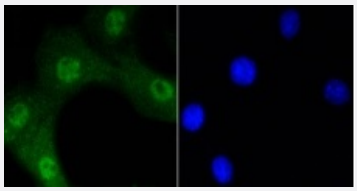
Catalog # RAB02743 Size 100 uL

Applications



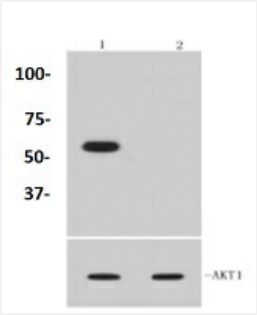
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded mouse lung tissue using AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743). Counter stained with hematoxylin.



Immunocytochemistry

Immunocytochemical staining of NIH/3T3 cells using AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743)(green). The nuclear counter stain is DAPI (blue).Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton *100/PBS.



Western Blot (Cell lysate)

Western blot analysis of Lane1:NIH/3T3 whole cell lysate treated with PDGF Lane2:NIH/3T3 whole cell lysate with AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743) at 1:1000 dilution.

Specification

Product Description	Rabbit recombinant monoclonal antibody raised against AKT1.

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Antibody Species	Rabbit
Immunogen	Original antibody is raised against recombinant AKT1.
Theoretical MW (kDa)	60
Reactivity	Human, Mouse
Specificity	This antibody detects endogenous levels of AKT1 only when phosphorylated at Ser473. This antibody also recognizes AKT2 and AKT3 when phosphorylated at the corresponding residues.
Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purification	Protein A purification
Isotype	IgG
Recommend Usage	Immunocytochemistry (1:50-1:200) Immunofluorescence (1:50-1:200) Immunohistochemistry (1:50-1:200) Western Blot (1:1000-1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH7.2 (50% glycerol and 0.02% sodium azide)
Storage Instruction	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

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

  Immunohistochemical analysis of paraffin-embedded mouse lung tissue using AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743). Counter stained with hematoxylin.

- Immunofluorescence

- Immunocytochemistry

  Immunocytochemical staining of NIH/3T3 cells using AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743)(green). The nuclear counter stain is DAPI (blue).Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton *100/PBS.

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- Western Blot (Cell lysate)

  Western blot analysis of Lane1:NIH/3T3 whole cell lysate treated with PDGF Lane2:NIH/3T3 whole cell lysate with AKT1 (phospho S473) recombinant monoclonal antibody (Cat # RAB02743) at 1:1000 dilution.

Gene Info — AKT1

Entrez GeneID	207
Protein Accession#	P31749;P31751;Q9Y243
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
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

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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