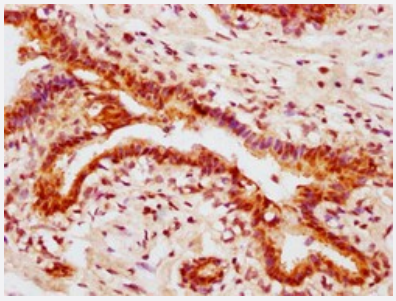
RecomAb™

AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12

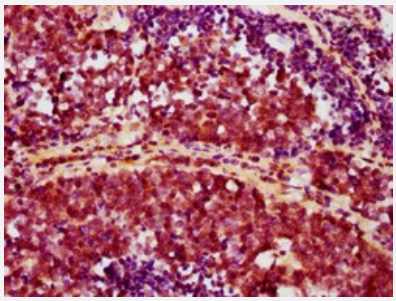
Catalog # RAB04283 Size 100 uL

Applications



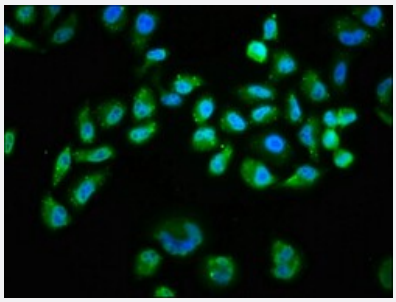
Immunohistochemistry

Immunohistochemical staining of human breast carcinoma with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:100).



Immunohistochemistry

Immunohistochemical staining of human lung cancer with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:100)



Immunofluorescence

Immunofluorescent staining of Hela cells with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:68). The secondary antibody was Alexa Fluor 488-congugated goat anti-rabbit IgG (green). Counter-stain DAPI was used (blue).

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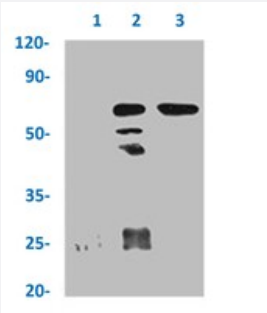
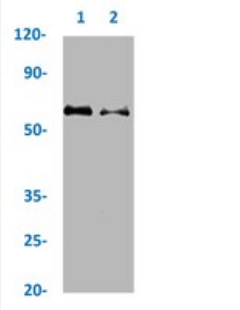


Immunoprecipitation

Immunoprecipitation analysis of 293 cell lysate with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283).
Lane 1: rabbit control IgG, Lane 2: RAB04283 precipitates and Lane 3: Input (293 whole cell lysates).



Western Blot

Western blot analysis of Lane 1:293 whole cell lysate (treated with Calyculin A 100nM/60 mins) and Lane 2: A549 whole cell lysate (not treated) with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283).

Specification

Product Description	Rabbit recombinant monoclonal antibody raised against human AKT1.
Antibody Species	Rabbit
Immunogen	Original antibody is raised against a synthetic phosphopeptide corresponding to residues surroundin g Ser473 of human AKT1.
Theoretical MW (kDa)	Calculated MW: 60 kD
Reactivity	Human
Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purification	Affinity chromatography
Isotype	IgG
Recommend Usage	ELISA Immunofluorescence (1:20-1:200) Immunohistochemistry (1:50-1:200) Immunoprecipitation (1:200-1:1000) Western Blot (1:500-1:5000) The optimal working dilution should be determined by the end user.

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Storage Buffer	In PBS, 150 mM NaCl, pH 7.4 (50% glycerol, 0.02% sodium azide)
Storage Instruction	Store at -20 °C or -80 °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

  Immunohistochemical staining of human breast carcinoma with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:100).

- Immunohistochemistry

  Immunohistochemical staining of human lung cancer with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:100)

- Immunofluorescence

  Immunofluorescent staining of Hela cells with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283) (diluated at 1:68). The secondary antibody was Alexa Fluor 488-congugated goat anti-rabbit IgG (green). Counter-stain DAPI was used (blue).

- Enzyme-linked Immunoabsorbent Assay

- Immunoprecipitation

  Immunoprecipitation analysis of 293 cell lysate with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283).
  Lane 1: rabbit control IgG, Lane 2: RAB04283 precipitates and Lane 3: Input (293 whole cell lysates).

- Western Blot

  Western blot analysis of Lane 1:293 whole cell lysate (treated with Calyculin A 100nM/60 mins) and Lane 2: A549 whole cell lysate (not treated) with AKT1 (phospho Ser473) recombinant monoclonal antibody, clone 4H12 (Cat # RAB04283).

Gene Info — AKT1

Entrez GeneID	207
Protein Accession#	P31749
Gene Name	AKT1

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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
- Colorectal cancer
- Endometrial cancer
- ErbB signaling pathway
- Fc epsilon RI signaling pathway
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- Glioma

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- 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
- Alzheimer disease
- Amphetamine-Related Disorders
- Atherosclerosis
- Basal Ganglia Diseases
- Bipolar Disorder
- Breast Neoplasms
- Calcinosis

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- 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
- HIV Infections
- Leukemia
- Liver Cirrhosis
- Lung Neoplasms
- Memory
- Metabolic Syndrome X

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- 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
- Retinoblastoma
- Schizophrenia
- Space Perception
- Thrombophilia
- Thyroid Neoplasms
- Tobacco Use Disorder

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- Tuberculosis
- Urinary Bladder Neoplasms
- Verbal Learning
- Werner syndrome

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