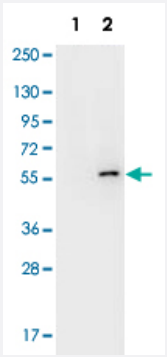
AKT1 (phospho S473) monoclonal antibody, clone 17F6.B11

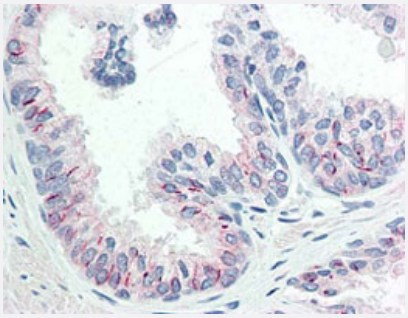
Catalog # MAB1919 Size 100 ug

Applications



Western Blot (Cell lysate)

Western blot using AKT1 (phospho S473) monoclonal antibody, clone 17F6.B11 (Cat # MAB1919) shows detection of phospho-AKT1 (indicated by arrowhead at ~56 KDa) on PDGF stimulated NIH/3T3 cell lysates (Lane 2). No reactivity is seen for non-phosphorylated AKT1 in untreated cells (Lane 1). Each lane contained approximately 10 ug of lysate.
All samples were loaded on to a 4-20% gradient gel for separation.
After electrophoresis, the gel was blocked with 5% BLOTTO in TBS for 90 min at RT.
The membrane was probed with the primary antibody at a 1:10,000 dilution in TBS with 0.05% Tween-20 with 1% BSA, for 1 h at 4°C. For detection HRP conjugated Gt-a-Mouse IgG was used at a 1:20,000 dilution for 1 h at 4°C with FemtoMax™ enhanced chemiluminescent reagent.
Images were captured using 2X2 binning for 10-20 sec using a BioSpectrum Imaging System (UVP Ltd.).



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

Immunohistochemistry of formalin fixed and paraffin embedded using AKT1 (phospho S473) monoclonal antibody, clone 17F6.B11 (Cat # MAB1919) shows detection of Phospho-AKT1 S473 in human prostate tissue.
The antibody was used at 20 ug/mL .
The staining is much stronger than the weak basal level of phosphorylation in normal prostate tissue.
Signal was developed using Dako's Techmate streptavidin-biotin reagents.
Personal communication, Glenna Burmer, Lifespan Biosciences, Seattle, WA.

Specification

Product Description	Mouse monoclonal antibody raised against synthetic phosphopeptide of AKT1.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S473 of human AKT1.
Host	Mouse
Reactivity	Chimpanzee, Human, Mouse, Rat
Specificity	This antibody is specific to human and mouse AKT protein phosphorylated at S473.
Form	Liquid
Isotype	IgG1, kappa
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:20000) Western Blot (1:500-1:3000) Immunohistochemistry (20 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_4, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage 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

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- Enzyme-linked Immunoabsorbent Assay

Gene Info — AKT1

Entrez GeneID	207
Protein Accession#	P31749;AAH00479
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 phosphatidylinositol 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

- Phaseolus vulgaris Exerts an Inhibitory Effect on Platelet Aggregation through AKT Dependent Way.

  Rodríguez-Azúa R, Quinteros EF, Olate-Briones A, Moore-Carrasco R.

  Preventive Nutrition and Food Science 2018 Jun; 23(2):102.

  Application: WB, Human, Platelets

- PKB/Akt: a key mediator of cell proliferation, survival and insulin responses?

  Lawlor MA, Alessi DR.

  Journal of Cell Science 2001 Aug; 114(Pt 16):2903.

  Application: IHC, WB-Tr, Human, Cancers, Mammalian cells

- Discovery of PDK1, one of the missing links in insulin signal transduction. Colworth Medal Lecture.

  Alessi DR.

  Biochemical Society Transactions 2001 May; 29(Pt 2):1.

- 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
- 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

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
- 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
- Pulmonary Disease
- Rectal Neoplasms
- Retinal Neoplasms
- Retinoblastoma
- Schizophrenia
- Space Perception
- Thrombophilia
- Thyroid Neoplasms

- Tobacco Use Disorder
- Tuberculosis
- Urinary Bladder Neoplasms
- Verbal Learning
- Werner syndrome