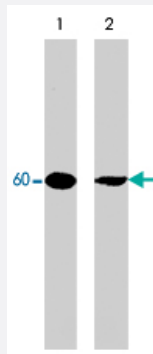


AKT1 monoclonal antibody, clone M101

Catalog # MAB1364

Size 100 uL

Applications



Western Blot (Cell lysate)

Western blot analysis of A-431 cells, serum starved overnight (lane 1) or treated with calyculin A (100 nM) for 30 min. (lane 2). The blot was probed with AKT1 monoclonal antibody, clone M101 (Cat # MAB1364).

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant AKT1.
Immunogen	Recombinant protein corresponding to N-terminus of human AKT1.
Host	Mouse
Reactivity	Human, Mouse, Rat
Specificity	This sequence is highly conserved in human and mouse Akt, and may recognize Akt2 and Akt3.
Form	Liquid
Isotype	IgG1
Quality Control Testing	Antibody Reactive Against Recombinant Protein.
Recommend Usage	ELISA (1:2000) Immunocytochemistry (1:250) Western Blot (1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (50% glycerol, 1 mg/mL BSA, 0.05% 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 should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western blot analysis of A-431 cells, serum starved overnight (lane 1) or treated with calyculin A (100 nM) for 30 min. (lane 2). The blot was probed with AKT1 monoclonal antibody, clone M101 (Cat # MAB1364).

- Immunocytochemistry

- Enzyme-linked Immunoabsorbent Assay

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](#)**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

- [TNF induction of atrogin-1/MAFbx mRNA depends on Foxo4 expression but not AKT-Foxo1/3 signaling.](#)

Moylan JS, Smith JD, Chambers MA, McLoughlin TJ, Reid MB.

American Journal of Physiology. Cell Physiology 2008 Oct; 295(4):C986.

Application: WB, Mouse , C2C12 cells

- [IFN-gamma does not mimic the catabolic effects of TNF-alpha.](#)

Smith MA, Moylan JS, Smith JD, Li W, Reid MB.

American Journal of Physiology. Cell Physiology 2007 Dec; 293(6):C1947.

Application: WB, Mouse, C2C12 cells

- [Ceramide disables 3-phosphoinositide binding to the pleckstrin homology domain of protein kinase B \(PKB\)/Akt by a PKCzeta-dependent mechanism.](#)

Powell DJ, Hajdich E, Kular G, Hundal HS.

Molecular and Cellular Biology 2003 Nov; 23(21):7794.

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](#)