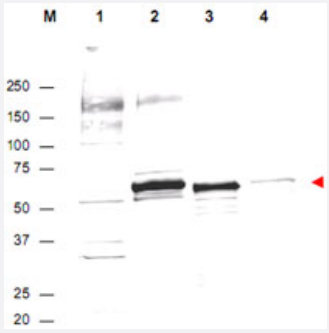
AKT1 polyclonal antibody

Catalog # PAB9932 Size 100 ug

Applications



Western Blot

Western blot using AKT1 polyclonal antibody (Cat # PAB9932) shows detection of endogenous protein in whole cell extracts from H_2O_2 treated MCF-7 cells (Lane 2).
Recombinant AKT1 is detected in lane 3.
Lanes 1 and 4 contain wcl from HeLa and A-431 cells, respectively.
Specific band staining is completely blocked when antibody is pre-incubated with the immunizing peptide (data not shown).
The band at ~55-60 KDa, indicated by the arrowhead, corresponds to the expected molecular weight of AKT1.
Primary antibody was diluted 1 : 300 in 1% BLOTTO and reacted with the membrane overnight at 4°C.
IRDYE800™ conjugated Dnky-a-Sheep IgG was used at a 1 : 10,000 dilution for 45 min at room temperature.

Specification

Product Description	Sheep polyclonal antibody raised against synthetic peptide of AKT1.
Immunogen	A synthetic peptide corresponding to internal region of human AKT1.
Host	Sheep
Reactivity	Chicken, Human, Mouse, Rat
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.

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Recommend Usage	ELISA (1:5000-1:20000) Western Blot (1:500-1:2000) 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 (0.1% 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

- Enzyme-linked Immunoabsorbent Assay
- Western Blot

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Gene Info — AKT1

Entrez GeneID	207
Protein Accession#	NP_005154;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

- BCR-tyrosine 177 plays an essential role in Ras and Akt activation and in human hematopoietic progenitor transformation in chronic myelogenous leukemia.

  Chu S, Li L, Singh H, Bhatia R.

  Cancer Research 2007 Jul; 67(14):7045.

  Application: WB-Ce, Human, Human CD34 cells

- Regulation of mammalian target of rapamycin activity in PTEN-inactive prostate cancer cells by I kappa B kinase alpha.

  Dan HC, Adli M, Baldwin AS.

  Cancer Research 2007 Jul; 67(13):6263.

  Application: WB-Tr, Human, DU145, HeLa cells

- AKT1 amplification regulates cisplatin resistance in human lung cancer cells through the mammalian target of rapamycin/p70S6K1 pathway.

  Liu LZ, Zhou XD, Qian G, Shi X, Fang J, Jiang BH.

  Cancer Research 2007 Jul; 67(13):6325.

  Application: WB-Ce, Human, A-549 cells

Pathway

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

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- 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

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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

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- 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

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

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