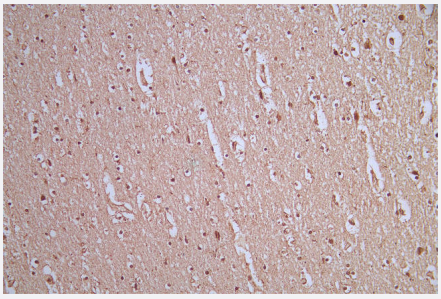
RecomAb™ Sm Size

AKT1/AKT2/AKT3 recombinant monoclonal antibody, clone 16E10

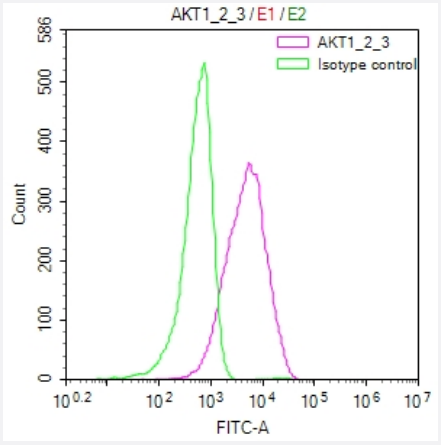
Catalog # RAB08632 Size 50 uL

Applications



Immunohistochemistry

Immunohistochemistry image of AKT1|AKT2|AKT3 recombinant monoclonal antibody, clone 16E10 diluted at 1:50 and staining in paraffin-embedded human brain tissue performed on a Leica Bond™ system.



Flow Cytometry

Overlay Peak curve showing Jurkat cells stained with AKT1|AKT2|AKT3 recombinant monoclonal antibody, clone 16E10 (red line) at 1:50.

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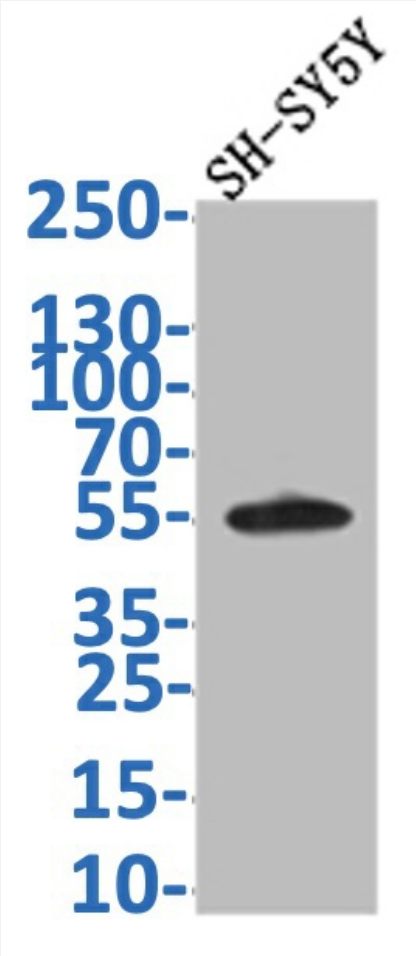

Western Blot

Western Blot analysis of
Lane 1: SH-SY5Y whole cell lysate.

Specification

Product Description	Rabbit recombinant monoclonal antibody raised against human AKT1/AKT2/AKT3.
Antibody Species	Rabbit
Immunogen	Original antibody is raised against a synthetic peptide corresponding to human AKT1/AKT2/AKT3.
Theoretical MW (kDa)	Calculated MW: 56
Reactivity	Human
Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purification	Affinity chromatography purification
Isotype	IgG

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Recommend Usage	ELISA Flow Cytometry(1:50-1:200) Immunohistochemistry(1:50-1:200) Western Blot(1:500-1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH7.4 (150 mM NaCl, 0.02% sodium azide and 50% glycerol)
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

  Immunohistochemistry image of AKT1|AKT2|AKT3 recombinant monoclonal antibody, clone 16E10 diluted at 1:50 and staining in paraffin-embedded human brain tissue performed on a Leica Bond™ system.

- Flow Cytometry

  Overlay Peak curve showing Jurkat cells stained with AKT1|AKT2|AKT3 recombinant monoclonal antibody, clone 16E10 (red line) at 1:50.

- Enzyme-linked Immunoabsorbent Assay

- Western Blot

  Western Blot analysis of
  Lane 1: SH-SY5Y whole cell lysate.

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

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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

Gene Info — AKT2

Entrez GeneID	208
Protein Accession#	P31749;P31751;Q9Y243
Gene Name	AKT2
Gene Alias	PKBB, PKBBETA, PRKBB, RAC-BETA
Gene Description	v-akt murine thymoma viral oncogene homolog 2
Omim ID	125853 164731
Gene Ontology	Hyperlink
Gene Summary	This gene is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains. The gene was shown to be amplified and overexpressed in 2 of 8 ovarian carcinoma cell lines and 2 of 15 primary ovarian tumors. Overexpression contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. The encoded protein is a general protein kinase capable of phophorylating several known proteins. [provided by RefSeq
Other Designations	Murine thymoma viral (v-akt) homolog-2|rac protein kinase beta

Gene Info — AKT3

Entrez GeneID	10000
Protein Accession#	P31749;P31751;Q9Y243
Gene Name	AKT3

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Gene Alias	DKFZp434N0250, PKB-GAMMA, PKBG, PRKBG, RAC-PK-gamma, RAC-gamma, STK-2
Gene Description	v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
Omim ID	611223
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the AKT, also called PKB, serine/threonine protein kinase family. AKT kinases are known to be regulators of cell signaling in response to insulin and growth factors. They are involved in a wide variety of biological processes including cell proliferation, differentiation, apoptosis, tumorigenesis, as well as glycogen synthesis and glucose uptake. This kinase has been shown to be stimulated by platelet-derived growth factor (PDGF), insulin, and insulin-like growth factor 1 (IGF1). Alternatively splice transcript variants encoding distinct isoforms have been described. [provided by RefSeq
Other Designations	OTTHUMP00000037911|OTTHUMP00000037912|RAC-gamma serine/threonine protein kinase|protein kinase B gamma|serine threonine protein kinase, Akt-3|v-akt murine thymoma viral oncogene homolog 3

Pathway

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

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

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- Insulin signaling pathway
- Insulin signaling pathway
- Insulin signaling pathway
- Jak-STAT signaling pathway
- Jak-STAT signaling pathway
- Jak-STAT signaling pathway
- MAPK signaling pathway
- MAPK signaling pathway
- MAPK signaling pathway
- Melanoma
- Melanoma
- Melanoma
- mTOR signaling pathway
- mTOR signaling pathway
- mTOR signaling pathway
- Neurotrophin signaling pathway
- Neurotrophin signaling pathway
- Neurotrophin signaling pathway
- Non-small cell lung cancer
- Non-small cell lung cancer
- Non-small cell lung cancer
- Pancreatic cancer
- Pancreatic cancer
- Pancreatic cancer
- Pathways in cancer
- Pathways in cancer

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- Pathways in cancer
- Prostate cancer
- Prostate cancer
- Prostate cancer
- Renal cell carcinoma
- Renal cell carcinoma
- Renal cell carcinoma
- Small cell lung cancer
- Small cell lung cancer
- Small cell lung cancer
- T cell receptor signaling pathway
- T cell receptor signaling pathway
- T cell receptor signaling pathway
- Tight junction
- Tight junction
- Tight junction
- Toll-like receptor signaling pathway
- Toll-like receptor signaling pathway
- Toll-like receptor signaling pathway
- VEGF signaling pathway
- VEGF signaling pathway
- VEGF signaling pathway

Disease

- Adenocarcinoma
- Adenocarcinoma

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- Adenocarcinoma
- Alzheimer disease
- Amphetamine-Related Disorders
- Atherosclerosis
- Basal Ganglia Diseases
- Bipolar Disorder
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Carcinoma
- Cardiovascular Diseases
- Cardiovascular Diseases
- Cardiovascular Diseases
- Cognition
- Colonic Neoplasms
- Colorectal Neoplasms
- Coronary Artery Disease
- Depressive Disorder
- Diabetes Complications
- Diabetes Mellitus
- Diabetes Mellitus
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Dominance
- Drug Toxicity

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- Drug Toxicity
- Dyskinesia
- Edema
- Edema
- Edema
- Endometrial Neoplasms
- Endometriosis
- Esophageal Neoplasms
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- HIV Infections
- HIV Infections
- HIV Infections
- Hypercholesterolemia
- Insulin Resistance
- Leukemia
- Lipodystrophy
- Liver Cirrhosis
- Lung Neoplasms
- Lung Neoplasms
- Memory
- Metabolic Syndrome X
- Metabolic Syndrome X
- Multiple Sclerosis

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- Necrosis
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Neoplasms
- Neuropsychological Tests
- Obesity
- Osteoporosis
- Ovarian cancer
- Ovarian Failure
- Ovarian Neoplasms
- Ovarian Neoplasms
- Parkinson disease
- Polycystic Ovary Syndrome
- Polycystic Ovary Syndrome
- Precursor T-Cell Lymphoblastic Leukemia-Lymphoma
- Prostatic Neoplasms
- Psychiatric Status Rating Scales
- Psychiatric Status Rating Scales
- Psychoses
- Psychotic Disorders
- Puberty
- Pulmonary Disease
- Rectal Neoplasms
- Retinal Neoplasms
- Retinoblastoma

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- Schizophrenia
- Schizophrenia
- Space Perception
- Thrombophilia
- Thyroid Neoplasms
- Thyroid Neoplasms
- Thyroid Neoplasms
- Tobacco Use Disorder
- Tuberculosis
- Urinary Bladder Neoplasms
- Urinary Bladder Neoplasms
- Verbal Learning
- Werner syndrome

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