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Anti-AKT3 Antibody
Catalog # ABO11508

Specification

Anti-AKT3 Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	Q9Y243
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for RAC-gamma serine/threonine-protein kinase(AKT3) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-AKT3 Antibody - Additional Information

Gene ID 10000

Other Names
RAC-gamma serine/threonine-protein kinase, 2.7.11.1, Protein kinase Akt-3, Protein kinase B gamma, PKB gamma, RAC-PK-gamma, STK-2, AKT3, PKBG

Calculated MW
55775 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Mouse, Human, Rat
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Nucleus . Cytoplasm . Membrane ; Peripheral membrane protein . Membrane-associated after cell stimulation leading to its translocation.

Tissue Specificity
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney.

Protein Name
RAC-gamma serine/threonine-protein kinase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human AKT3(122-136aa TSQIDNIGEEEMDAS), identical to the related mouse and rat sequences.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. RAC subfamily.

Anti-AKT3 Antibody - Protein Information

Name AKT3

Synonyms PKBG

Function
AKT3 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT3 is the least studied AKT isoform. It plays an important role in brain development and is crucial for the viability of malignant glioma cells. AKT3 isoform may also be the key molecule in up-regulation and down-regulation of MMP13 via IL13. Required for the coordination of mitochondrial biogenesis with growth factor-induced increases in cellular energy demands. Down- regulation by RNA interference reduces the expression of the phosphorylated form of BAD, resulting in the induction of caspase- dependent apoptosis.

Cellular Location
Nucleus. Cytoplasm. Membrane; Peripheral membrane protein Note=Membrane-associated after cell stimulation leading to its translocation

Tissue Location
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney

Anti-AKT3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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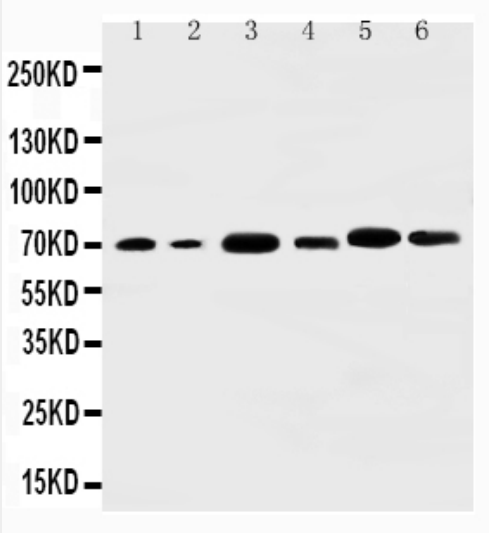
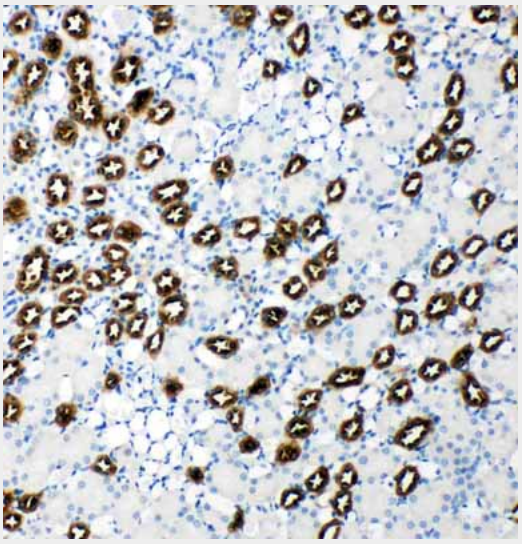
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-AKT3 Antibody - Images



Anti-AKT3 antibody, ABO11508, Western blottingLane 1: Rat Lung Tissue LysateLane 2: Rat Kidney Tissue LysateLane 3: HELA Cell LysateLane 4: Human Placenta Tissue LysateLane 5: A549 Cell LysateLane 6: NIH3T3 Cell Lysate



Anti-AKT3 antibody, ABO11508, IHC(P)IHC(P): Rat Kidney Tissue

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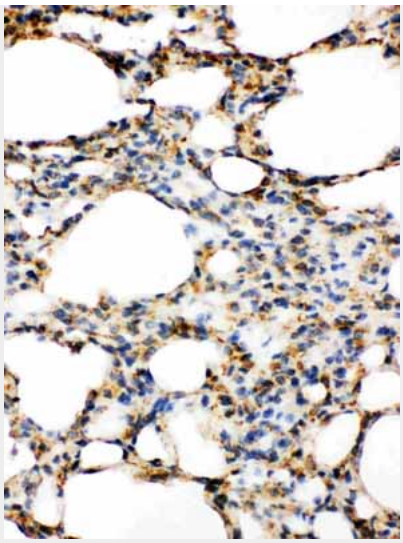
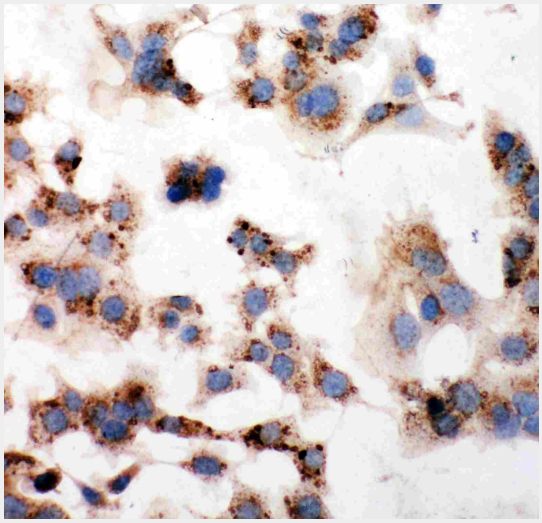
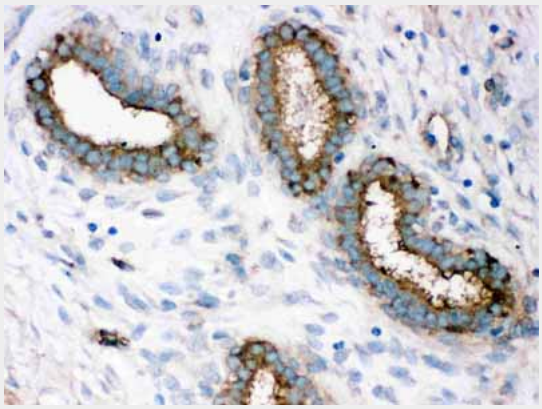


Anti-AKT3 antibody, ABO11508, IHC(P)IHC(P): Rat Lung Tissue



Anti-AKT3 antibody, ABO11508, ICCICC: HEPA Cell



Anti-AKT3 antibody, ABO11508, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-AKT3 Antibody - Background

RAC-gamma serine/threonine-protein kinase, also known as protein kinase Akt-3, is an enzyme that in humans is encoded by the AKT3 gene. This gene is mapped to 1q43-q44. 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). AKT3 plays an important role in brain development and is crucial for the viability of malignant glioma cells. AKT3 isoform may also be the key molecule in up-regulation and down-regulation of MMP13 via IL13. This gene is required for the coordination of mitochondrial biogenesis with growth factor-induced increases in cellular energy demands.