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Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody

AKT3 PE Antibody
Catalog # ASR4331

Specification

Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody - Product Information

Host	**Mouse**
Conjugate	**R-Phycoerythrin (RPE)**
FP Value	**1-2**
Target Species	**Human**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**Anti-AKT3 PE Antibody is tested for Flow Cytometry. This antibody is suitable for ELISA, immunohistochemistry, and western blotting. Expect a band approximately 56 kDa in size corresponding to AKT3 protein by western blotting in the appropriate cell lysate or extract. This monoclonal antibody reacts with human AKT. Specific conditions for reactivity should be optimized by the end user. For immunohistochemistry we recommend the use of fresh frozen tissues. Attempts at staining paraffin-embedded formalin fixed tissues were negative. No pre-treatment of sample is required.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2**
Immunogen	**Anti-AKT3 Antibody was produced in mice by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT3 protein.**
Reconstitution Volume	**50 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**
Stabilizer	**10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free**

Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody - Additional Information

Gene ID 10000

Other Names
10000

Purity

Anti-AKT3 antibody is directed against human AKT3. The antibody detects both unphosphorylated and phosphorylated forms of the protein. Anti-AKT3 antibody was purified from ascites by Protein A chromatography. Cross reactivity with AKT3 from other species has not been determined, however, the sequence of the immunogen shows 100% identity to human, mouse, and rat, therefore, cross reactivity is expected. Cross-reactivity with AKT2 and AKT has not been determined.

Storage Condition
Store vial at 4° C prior to restoration. Restore with deionized water (or equivalent). This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. Centrifuge product if not completely clear after standing at room temperature. Do not freeze after reconstitution. Store reagent in the dark. Use subdued lighting during handling and incubation of cells prior to analysis.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal 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 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody - Protocols

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

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

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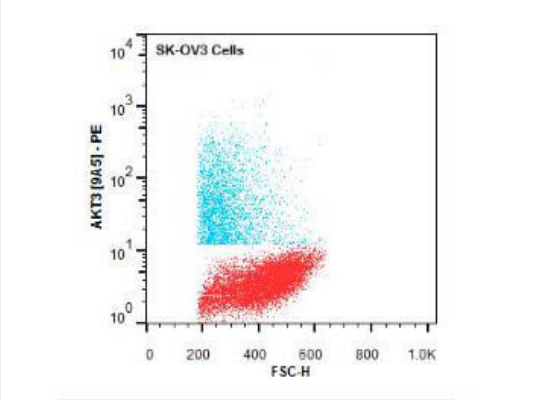
- Flow Cytomety
- Cell Culture

Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody - Images



Flow Cytometry of Mouse anti-AKT3 antibody. Cells: SK-OV3 Cells. Stimulation: none. Primary antibody: Phycoerythrin AKT3 antibody at 1.0 µg/mL for 20 min at 4°C.

Anti-AKT3 (MOUSE) Phycoerythrin Conjugated Monoclonal Antibody - Background

AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation. Anti-AKT3 (MOUSE) PE conjugated Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.