10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AKT3 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1849B

Specification

AKT3 Antibody - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9Y243
Other Accession	Q9WUA6, NP_859029.1
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,λ**

AKT3 Antibody - Additional Information

Gene ID 10000

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

Target/Specificity
This AKT3 monoclonal antibody is generated from mouse immunized with AKT3 recombinant protein.

Dilution
WB~~1:500~1000
IHC-P~~1:50~100

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
AKT3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

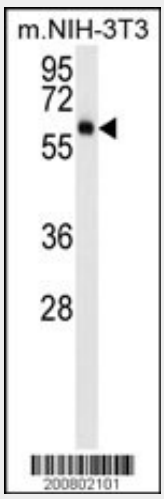
Tissue Location
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney

AKT3 Antibody - Protocols

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

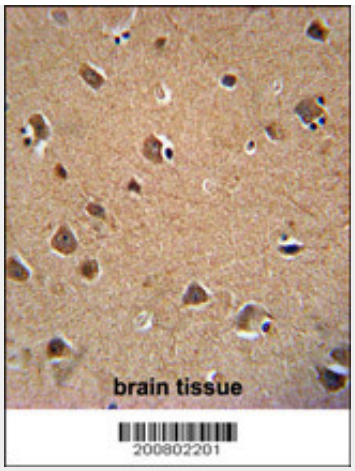
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

AKT3 Antibody - Images



AKT3 (Cat. #AM1849b) western blot analysis in mouse NIH-3T3 cell line lysates (15µg/lane).This demonstrates the AKT3 antibody detected the AKT3 protein (arrow).

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



AKT3 Monoclonal Antibody (Cat. #AM1849b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjµgation of the secondary antibody and DAB staining. This data demonstrates the use of the AKT3 Monoclonal Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

AKT3 Antibody - Background

AKT3 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 Antibody - References

Santi, S.A., et al. Am. J. Physiol., Cell Physiol. 298 (3), C580-C591 (2010) :
McCauley, J.L., et al. Genes Immun. 10(7):624-630(2009)
Yang, W.L., et al. Science 325(5944):1134-1138(2009)