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

AKT3 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS13079

Specification

AKT3 Antibody (Internal) - Product Information

Application	**IHC**
Primary Accession	Q9Y243
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Pig, Chicken, Horse, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**56kDa KDa**

AKT3 Antibody (Internal) - 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

Target/Specificity
Human AKT3. This antibody is expected to recognise an epitope corresponding to aa 119-133 of both isoforms of human AKT3 protein. This antibody does not cross-react with human AKT1/2. Reported variants represent identical protein (NP_859029.1; NP_001 ...

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

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

AKT3 Antibody (Internal) - 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

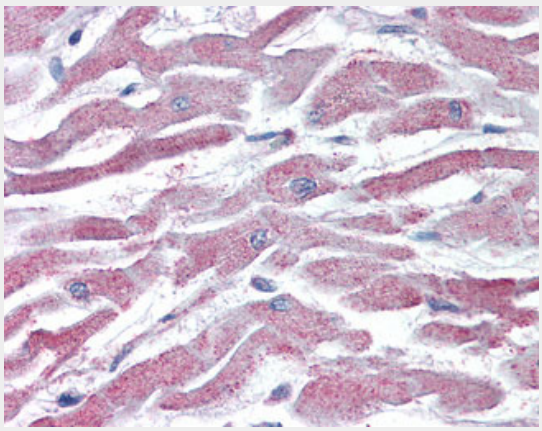
Tissue Location
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney

AKT3 Antibody (Internal) - 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 (Internal) - Images



Anti-AKT3 antibody IHC of human heart.

AKT3 Antibody (Internal) - Background

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reduces the expression of the phosphorylated form of BAD, resulting in the induction of caspase-dependent apoptosis.

AKT3 Antibody (Internal) - References

Brodbeck D.,et al.J. Biol. Chem. 274:9133-9136(1999).
Nakatani K.,et al.Biochem. Biophys. Res. Commun. 257:906-910(1999).
Masure S.,et al.Eur. J. Biochem. 265:353-360(1999).
Li X.,et al.Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases.
Wiemann S.,et al.Genome Res. 11:422-435(2001).