

**KD-Validated Anti-AKT3 Mouse Monoclonal Antibody**  
Mouse monoclonal antibody  
Catalog # AGI1438

**Specification**

**KD-Validated Anti-AKT3 Mouse Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">Q9Y243</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG3
Calculated MW	Predicted, 56 kDa; observed, 56 kDa
Gene Name	AKT3
Aliases	AKT3; AKT Serine/Threonine Kinase 3; PKBG; RAC-Gamma; PRKBG; RAC-Gamma Serine/Threonine-Protein Kinase; RAC-PK-Gamma; EC 2.7.11.1; PKB Gamma; STK-2; V-Akt Murine Thymoma Viral Oncogene Homolog 3 (Protein Kinase B, Gamma); V-Akt Murine Thymoma Viral Oncogene Homolog 3; RAC-Gamma Serine/Threonine Protein Kinase; Protein Kinase B, Gamma; Protein Kinase B Gamma; Protein Kinase Akt-3; PKB-GAMMA; EC 2.7.11; MPPH2; MPPH Recombinant protein of human AKT3
Immunogen	

**KD-Validated Anti-AKT3 Mouse Monoclonal 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

**KD-Validated Anti-AKT3 Mouse 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

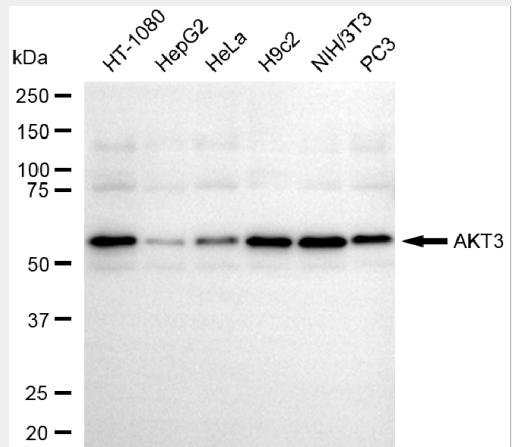
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney

#### KD-Validated Anti-AKT3 Mouse Monoclonal Antibody - Protocols

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

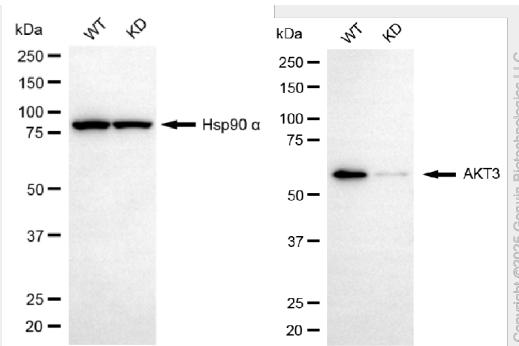
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### KD-Validated Anti-AKT3 Mouse Monoclonal Antibody - Images



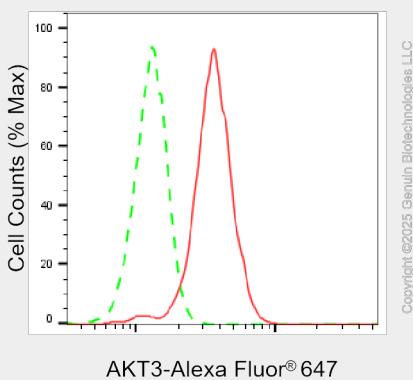
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Western blotting analysis using anti-AKT3 antibody (Cat#AGI1438). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-AKT3 antibody (Cat#AGI1438, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



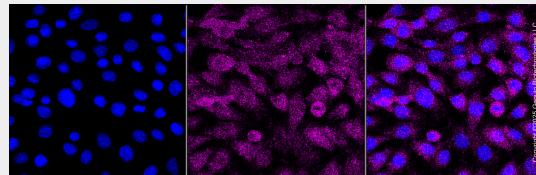
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Western blotting analysis using anti-AKT3 antibody (Cat#AGI1438). AKT3 expression in wild-type (WT) and AKT3 knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-AKT3 antibody (Cat#AGI1438, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



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Flow cytometric analysis of AKT3 expression in C2C12 cells using anti-AKT3 antibody (Cat#AGI1438, 1:2,000). Green, isotype control; red, AKT3.



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Immunocytochemical staining of C2C12 cells with anti-AKT3 antibody (Cat#AGI1438, 1:1,000). Nuclei were stained blue with DAPI; AKT3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20  $\mu$ m.