

**AKT1S1 Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM2018b**

**Specification**

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**AKT1S1 Antibody - Product Information**

Application	WB,E
Primary Accession	<a href="#">O96B36</a>
Other Accession	<a href="#">NP_001092102.1</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1

**AKT1S1 Antibody - Additional Information**

**Gene ID** 84335

**Other Names**

Proline-rich AKT1 substrate 1, 40 kDa proline-rich AKT substrate, AKT1S1  
{ECO:0000312|EMBL:AAH160431}

**Target/Specificity**

Purified His-tagged AKT1S1 protein(Fragment) was used to produced this monoclonal antibody.

**Dilution**

WB~~1:100

**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**

AKT1S1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**AKT1S1 Antibody - Protein Information**

**Name** AKT1S1 {ECO:0000312|EMBL:AAH16043.1}

**Function** Negative regulator of the mechanistic target of rapamycin complex 1 (mTORC1), an evolutionarily conserved central nutrient sensor that stimulates anabolic reactions and macromolecule biosynthesis to promote cellular biomass generation and growth (PubMed:[17277771](#), PubMed:[17386266](#), PubMed:[17510057](#), PubMed:[29236692](#)). In absence of insulin and nutrients, AKT1S1 associates with the mTORC1 complex and directly inhibits mTORC1

activity by blocking the MTOR substrate- recruitment site (PubMed:[29236692](#)). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:[17386266](#), PubMed:[18372248](#)). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed:[16174443](#), PubMed:[18372248](#)). May also play a role in nerve growth factor-mediated neuroprotection (By similarity).

#### Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9D1F4}. Note=Found in the cytosolic fraction of the brain. {ECO:0000250|UniProtKB:Q9D1F4}

#### Tissue Location

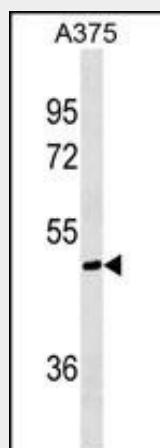
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

### AKT1S1 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](#)

### AKT1S1 Antibody - Images



AKT1S1 Antibody (Cat. #AM2018b) western blot analysis in A375 cell line lysates (35µg/lane). This demonstrates the AKT1S1 antibody detected the AKT1S1 protein (arrow).

### AKT1S1 Antibody - Background

AKT1S1 is a proline-rich substrate of AKT (MIM 164730) that binds 14-3-3 protein (see YWHAH, MIM 113508) when phosphorylated (Kovacina et al., 2003 [PubMed 12524439]). [supplied by OMIM].

### AKT1S1 Antibody - References

Wang, L., et al. J. Biol. Chem. 283(23):15619-15627(2008)  
Fonseca, B.D., et al. Biochem. J. 411(1):141-149(2008)  
Fonseca, B.D., et al. J. Biol. Chem. 282(34):24514-24524(2007)  
Wang, L., et al. J. Biol. Chem. 282(27):20036-20044(2007)  
Sancak, Y., et al. Mol. Cell 25(6):903-915(2007)