

**AKT1S1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14275B****Specification**

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**AKT1S1 Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">O96B36</a>
Other Accession	<a href="#">O9D1F4</a> , <a href="#">NP_115751.2</a> , <a href="#">NP_001092103.1</a> , <a href="#">NP_001092102.1</a>
Reactivity	<b>Human</b>
Predicted	<b>Mouse</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>27383</b>
Antigen Region	<b>227-256</b>

**AKT1S1 Antibody (C-term) - 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**

This AKT1S1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 227-256 amino acids from the C-terminal region of human AKT1S1.

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**AKT1S1 Antibody (C-term) - 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

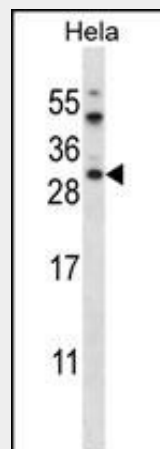
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

### AKT1S1 Antibody (C-term) - Protocols

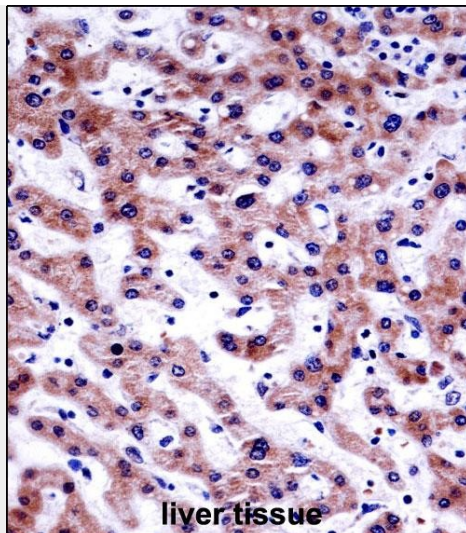
Provided below are standard protocols that you may find useful for product applications.

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

### AKT1S1 Antibody (C-term) - Images



AKT1S1 Antibody (C-term) (Cat. #AP14275b) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the AKT1S1 antibody detected the AKT1S1 protein (arrow).



AKT1S1 Antibody (C-term) (AP14275b) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of AKT1S1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **AKT1S1 Antibody (C-term) - 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 (C-term) - 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)