

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

Specification

AKT1S1 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q96B36
Other Accession	Q9D1F4 , NP_115751.2 , NP_001092103.1 , NP_001092102.1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	27383
Antigen Region	227-256

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

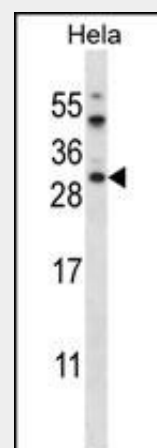
WB~~1:1000
IHC-P~~1:10~50

Format

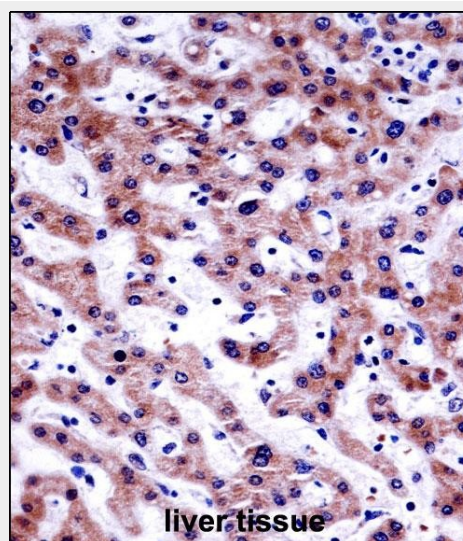
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C



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.

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

Subunit of mTORC1, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino acids. Growth factor-stimulated mTORC1 activation involves a AKT1-mediated phosphorylation of TSC1- TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eIF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Within mTORC1, AKT1S1 negatively regulates mTOR activity in a manner that is dependent on its phosphorylation state and binding to 14-3-3 proteins. Inhibits RHEB-GTP-dependent mTORC1 activation. Substrate for AKT1 phosphorylation, but can also be activated by AKT1- independent mechanisms. May also play a role in nerve growth factor- mediated neuroprotection.

Cellular Location

Cytoplasm, cytosol. Note=Found in the cytosolic fraction of the brain.

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.

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)

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](#)