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

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 IgG**
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 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}

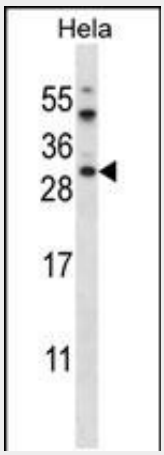
Tissue Location
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

AKT1S1 Antibody (C-term) - Protocols

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

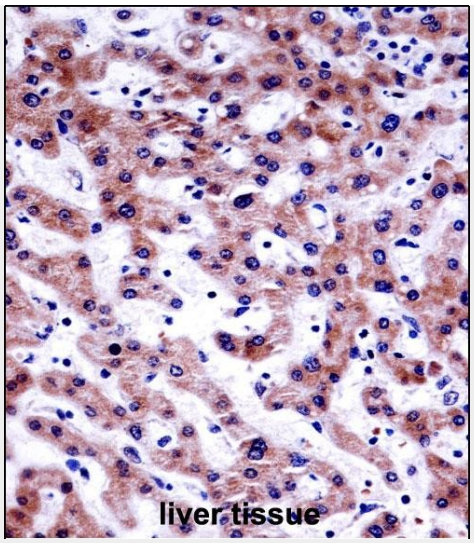
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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).

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



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)