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AKT1S1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP14275b

Specification

AKT1S1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q96B36

AKT1S1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 84335

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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

AKT1S1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- Blocking Peptides

AKT1S1 Antibody (C-term) Blocking Peptide - Images

AKT1S1 Antibody (C-term) Blocking Peptide - Background

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

AKT1S1 Antibody (C-term) Blocking Peptide - 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)