

**PRAS40 Antibody**  
Rabbit mAb  
Catalog # AP91334

## Specification

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### PRAS40 Antibody - Product Information

Application	WB, IHC, FC, IP
Primary Accession	<a href="#">O96B36</a>
Clonality	Monoclonal
<b>Other Names</b>	
40 kDa proline rich AKT substrate; AKT1 S1; AKT1 substrate 1 (proline rich); AKT1S1; Lobe; PRAS40; Proline rich akt substrate;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	27383 Da

### PRAS40 Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PRAS40
Description	PRAS40 interacts with Raptor in mTOR complex 1 (mTORC1) in insulin-deprived cells and inhibits the activation of the mTORC1 pathway mediated by the cell cycle protein Rheb. Phosphorylation of PRAS40 by Akt at Thr246 relieves PRAS40 inhibition of mTORC1. mTORC1 in turn phosphorylates PRAS40 at Ser183.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### PRAS40 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:<a href="http://www.uniprot.org/citations/17277771" target="\_blank">17277771</a>, PubMed:<a href="http://www.uniprot.org/citations/17386266" target="\_blank">17386266</a>, PubMed:<a href="http://www.uniprot.org/citations/17510057" target="\_blank">17510057</a>, PubMed:<a href="http://www.uniprot.org/citations/29236692" target="\_blank">29236692</a>). 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:<a href="http://www.uniprot.org/citations/29236692" target="\_blank">29236692</a>). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:<a href="http://www.uniprot.org/citations/17386266" target="\_blank">17386266</a>, PubMed:<a href="http://www.uniprot.org/citations/18372248" target="\_blank">18372248</a>). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed:<a href="http://www.uniprot.org/citations/16174443" target="\_blank">16174443</a>, PubMed:<a href="http://www.uniprot.org/citations/18372248" target="\_blank">18372248</a>). 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

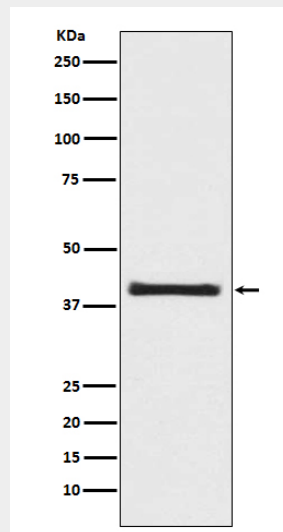
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

### PRAS40 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](#)

### PRAS40 Antibody - Images



Western blot analysis of PRAS40 expression in 293T cell lysate.