

PRAS40 Antibody
Rabbit mAb
Catalog # AP91483**Specification****PRAS40 Antibody - Product Information**

Application	WB, IP
Primary Accession	Q96B36
Reactivity	Rat
Clonality	Monoclonal
Other Names	
40 kDa proline rich AKT substrate; AKT1 S1; Lobe; PRAS40; Proline rich akt substrate; Proline rich Akt substrate 40 kDa;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	27383 Da

PRAS40 Antibody - Additional Information

Dilution	WB~~1:1000 IP~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PRAS40
Description	Many growth factors and hormones induce the phosphoinositide 3-kinase signaling pathway, which results in the activation of downstream effector proteins such as the serine/threonine kinase Akt. One known Akt substrate is a 40 kDa, proline-rich protein (PRAS40) that binds to 14-3-3 protein. PRAS40 also binds mTOR to transduce Akt signals to the mTOR complex.
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

[17277771](http://www.uniprot.org/citations/17277771), PubMed: [17386266](http://www.uniprot.org/citations/17386266), PubMed: [17510057](http://www.uniprot.org/citations/17510057), PubMed: [29236692](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/29236692)). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed: [17386266](http://www.uniprot.org/citations/17386266), PubMed: [18372248](http://www.uniprot.org/citations/18372248)). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed: [16174443](http://www.uniprot.org/citations/16174443), PubMed: [18372248](http://www.uniprot.org/citations/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

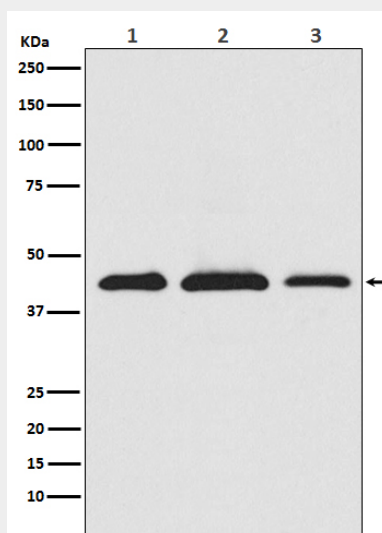
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

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 (1) HeLa cell lysate; (2) RAW 264.7 cell lysate; (3) PC12 cell lysate.