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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

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:17277771, PubMed:17386266, PubMed:<a

href="http://www.uniprot.org/citations/17510057" target="_blank">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}

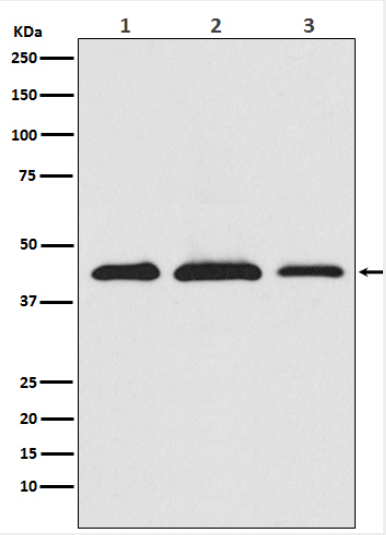
Tissue Location
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

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 Cytomety
- Cell Culture

PRAS40 Antibody - Images



Western blot analysis of PRAS40 expression in (1) HeLa cell lysate; (2) RAW 264.7 cell lysate; (3)

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PC12 cell lysate.