

Anti-PRAS40 Antibody
Rabbit polyclonal antibody to PRAS40
Catalog # AP60425

Specification

Anti-PRAS40 Antibody - Product Information

Application	WB
Primary Accession	O96B36
Other Accession	O9D1F4
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27383

Anti-PRAS40 Antibody - Additional Information

Gene ID 84335

Other Names

PRAS40; Proline-rich AKT1 substrate 1; 40 kDa proline-rich AKT substrate

Target/Specificity

Recognizes endogenous levels of PRAS40 protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-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: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:<a

[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

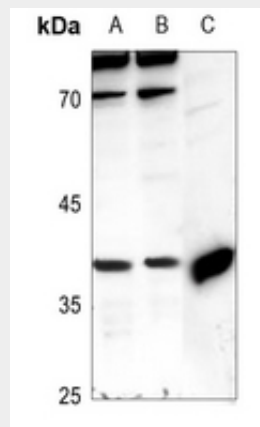
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

Anti-PRAS40 Antibody - Protocols

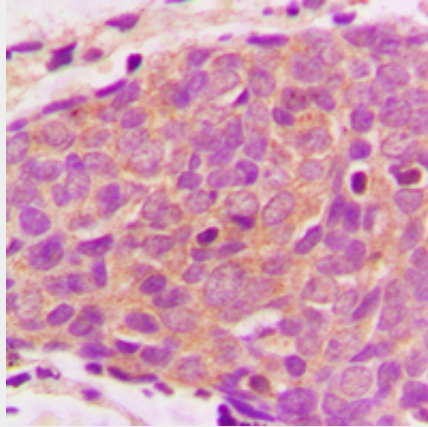
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-PRAS40 Antibody - Images



Western blot analysis of PRAS40 expression in HepG2 (A), EC9706 (B), rat kidney (C) whole cell lysates.



Immunohistochemical analysis of PRAS40 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-PRAS40 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PRAS40. The exact sequence is proprietary.