

PRAS40 Antibody

Rabbit mAb

Catalog # AP91483

Product Information

Application	WB, IP
Primary Accession	Q96B36
Reactivity	Rat, Human, Mouse
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

Additional Information

Dilution	WB 1:500~1:2000 IP 1:50
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.

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).

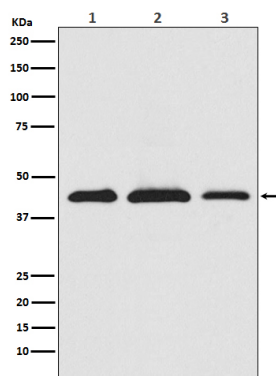
Cellular Location

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)

Images



Western blot analysis of PRAS40 expression in (1) HeLa cell lysate; (2) RAW 264.7 cell lysate; (3) PC12 cell lysate.

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