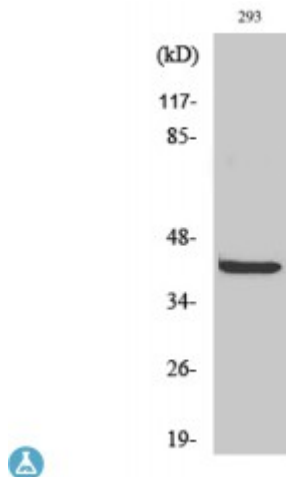


Anti-PRAS40 antibody



Description	Rabbit polyclonal to PRAS40.
Model	STJ95215
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human PRAS40 around the non-phosphorylation site of T246.
Immunogen Region	180-260 aa
Gene ID	84335
Gene Symbol	AKT1S1
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:5000
Specificity	PRAS40 Polyclonal Antibody detects endogenous levels of PRAS40 protein.
Tissue Specificity	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).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Proline-rich AKT1 substrate 1 40 kDa proline-rich AKT substrate
Molecular Weight	40 kDa

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:284260MIM:610221
Alternative Names	Proline-rich AKT1 substrate 1 40 kDa proline-rich AKT substrate
Function	Subunit of mTORC1, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino acids. Growth factor-stimulated mTORC1 activation involves a AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eIF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Within mTORC1, AKT1S1 negatively regulates mTOR activity in a manner that is dependent on its phosphorylation state and binding to 14-3-3 proteins. Inhibits RHEB-GTP-dependent mTORC1 activation. Substrate for AKT1 phosphorylation, but can also be activated by AKT1-independent mechanisms. May also play a role in nerve growth factor-mediated neuroprotection.
Cellular Localization	Cytoplasm, cytosol. Found in the cytosolic fraction of the brain.
Post-translational Modifications	Phosphorylated by AKT1 . Phosphorylation at Thr-246 by DYRK3 relieves inhibitory function on mTORC1 .