

Rabbit PRAS40 Polyclonal Antibody | anti-PRAS40 antibody

Phospho-PRAS40 (Ser183) Antibody

CATALOG # AAA321370	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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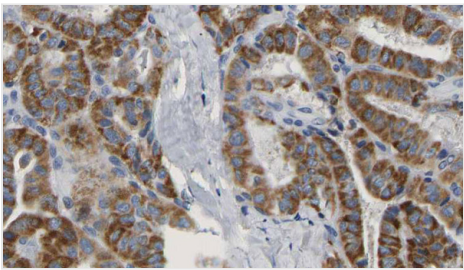
PRODUCT SYNONYMS

PRAS40; Polyclonal Antibody; Phospho-PRAS40 (Ser183) Antibody; 40 kDa proline rich AKT substrate; 40 kDa proline-rich AKT substrate; AKT1 S1; AKT1 substrate 1 (proline rich); AKT1 substrate 1; AKT1S 1; AKT1S1; AKTS1_HUMAN; Lobe; MGC2865; PRAS 40; PRAS; Proline rich akt substrate; Proline rich Akt substrate 40 kDa; Proline-rich AKT1 substrate 1; anti-PRAS40 antibody

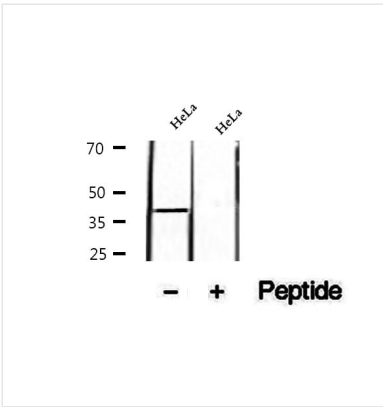
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-PRAS40 (Ser183) antibody detects endogenous levels of PRAS40.
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	256
Applicable Applications for anti-PRAS40 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PRAS40 around the phosphorylation site of Ser183.
Subcellular Location	Cytoplasm > Cytosol. Found in the cytosolic fraction of the brain.
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).
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Dog, Xenopus
Similarity	Pig (100%), Zebrafish (89%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Xenopus (92%)
Conjugation	Unconjugated
Epitope	Phospho Ser183
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA321370 at 1/100 staining Human thyroid cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts of HeLa cells, using Phospho-PRAS40 (Ser183) Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PRAS40 antibody	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. Subunit Structure: Part of the mammalian target of rapamycin complex 1 (mTORC1) which contains MTOR, MLST8, RPTOR, AKT1S1/PRAS40 and DEPTOR. mTORC1 binds to and is inhibited by FKBP12-rapamycin. Interacts directly with RPTOR. The phosphorylated form interacts with 14-3-3 proteins. Post-translational Modifications: Phosphorylated by AKT1 (PubMed:12524439). Phosphorylation at Thr-246 by DYRK3 relieves inhibitory function on mTORC1 (PubMed:23415227).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	148806906
NCBI GeneID	84335
NCBI Accession #	NP_001092102.1
NCBI GenBank Nucleotide #	NM_001098632.2
UniProt Accession #	Q96B36; Q96BI4; Q96IK7; Q96NG2; Q9BWR5; A8MTQ1; B2RE93; J3KPM3
Molecular Weight	Observed: 40 kDa Predicted: 28 kDa
NCBI Official Full Name	proline-rich AKT1 substrate 1 isoform b
NCBI Official Synonym Full Names	AKT1 substrate 1
NCBI Official Symbol	AKT1S1
NCBI Official Synonym Symbols	Lobe; PRAS40
NCBI Protein Information	proline-rich AKT1 substrate 1
UniProt Protein Name	Proline-rich AKT1 substrate 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pras40-antibody-immunohistochemistry-western-blot-elisa/321370>