ARG58272
anti-PRAS40 phospho (Thr246) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PRAS40 phospho (Thr246)
Tested Reactivity	Hu
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PRAS40
Species	Human
Immunogen	Phospho specific peptide around Thr246 of Human PRAS40 (NP_001092102.1).
Conjugation	Un-conjugated
Alternate Names	Lobe; 40 kDa proline-rich AKT substrate; Proline-rich AKT1 substrate 1; PRAS40

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HeLa + insulin
Observed Size	45 kDa

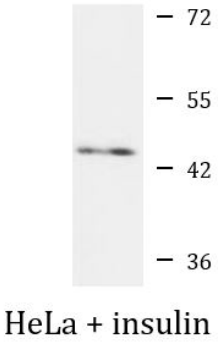
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	AKT1S1
Gene Full Name	AKT1 substrate 1 (proline-rich)
Background	AKT1S1 is a proline-rich substrate of AKT (MIM 164730) that binds 14-3-3 protein (see YWHAH, MIM 113508) when phosphorylated (Kovacina et al., 2003 [PubMed 12524439]).[supplied by OMIM, Mar 2008]
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. [UniProt]
Calculated Mw	27 kDa
PTM	Phosphorylated by AKT1 (PubMed:12524439). Phosphorylation at Thr-246 by DYRK3 relieves inhibitory function on mTORC1 (PubMed:23415227). [UniProt]
Cellular Localization	Cytoplasm, cytosol. [UniProt]

Images



ARG58272 anti-PRAS40 phospho (Thr246) antibody WB image

Western blot: 25 µg of HeLa cells treated by insulin (0.01 U/ml) for 15 minutes after serum-starvation overnight. The blot was stained with ARG58272 anti-PRAS40 phospho (Thr246) antibody at 1:2000 dilution.