

Datasheet for ABIN3029887  
**anti-PRAS40 antibody (AA 227-256)**



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3 Images

## Overview

Quantity:	0.4 mL
Target:	PRAS40 (AKT1S1)
Binding Specificity:	AA 227-256
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRAS40 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

## Product Details

Immunogen:	A portion of amino acids 227-256 from the human protein was used as the immunogen for this AKT1S1 antibody.
Isotype:	Ig Fraction
Cross-Reactivity (Details):	Expected species reactivity: Mouse
Purification:	Antigen affinity purified

## Target Details

Target:	PRAS40 (AKT1S1)
Alternative Name:	AKT1S1 ( <a href="#">AKT1S1 Products</a> )
Background:	Subunit of mTORC1, which regulates cell growth and survival in response to nutrient and

Target Details

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]

UniProt:	<a href="#">Q96B36</a>
Pathways:	<a href="#">Fc-epsilon Receptor Signaling Pathway</a> , <a href="#">EGFR Signaling Pathway</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Regulation of Cell Size</a> , <a href="#">Autophagy</a> , <a href="#">BCR Signaling</a> , <a href="#">Warburg Effect</a>

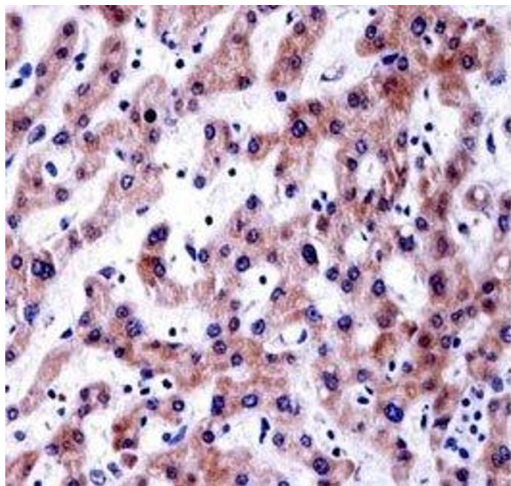
Application Details

Application Notes:	Titration of the AKT1S1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.\. Western blot: 1:1000,IHC (Paraffin): 1:10-1:50
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Restrictions:	For Research Use only
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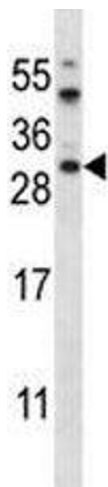
Handling

Format:	Liquid
Buffer:	In 1X PBS, pH 7.4, with 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Aliquot the AKT1S1 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.



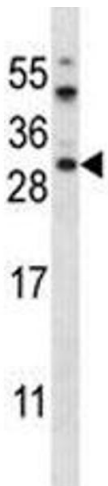
**Immunohistochemistry**

**Image 1.** AKT1S1 antibody immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue.



**Western Blotting**

**Image 2.** AKT1S1 antibody western blot analysis in HeLa lysate



**Western Blotting**

**Image 3.** AKT1S1 antibody western blot analysis in HeLa lysate