


Product datasheet

Anti-PRAS40 (phospho T246) antibody ab214100

1 References 3 Images

Overview

Product name	Anti-PRAS40 (phospho T246) antibody
Description	Rabbit polyclonal to PRAS40 (phospho T246)
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide corresponding to Human PRAS40 (phospho T246) conjugated to Keyhole Limpet Haemocyanin (KLH). Database link: Q96B36
Positive control	HEK293T, A431, and HeLa cell extracts; Human breast carcinoma tissue; HeLa cells.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.0975% Sodium azide Constituent: 99% PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab214100** in the following tested applications.

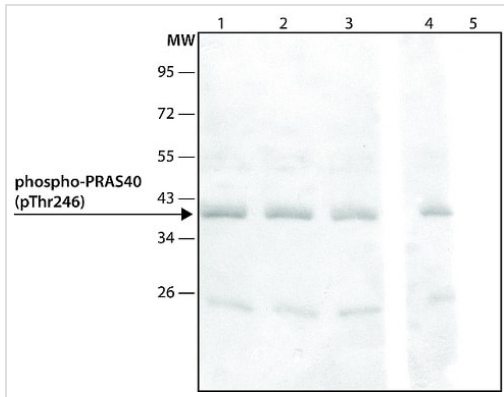
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 10 - 20 µg/ml.
WB		Use a concentration of 1.5 - 3 µg/ml. Predicted molecular weight: 27 kDa.
ICC/IF		Use a concentration of 10 - 20 µg/ml.

Target

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.
Tissue specificity	Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A549 and HeLa) than in normal cell lines (e.g. HEK293).
Post-translational modifications	Phosphorylated by AKT1. Phosphorylation relieves inhibitory function on mTORC1.
Cellular localization	Cytoplasm > cytosol. Found in the cytosolic fraction of the brain.

Images



Western blot - Anti-PRAS40 (phospho T246) antibody (ab214100)

All lanes : Anti-PRAS40 (phospho T246) antibody (ab214100) at 1.5 µg/ml

Lane 1 : HEK293T cell extract

Lane 2 : A431 cell extract

Lane 3 : HeLa cell extract

Lane 4 : HEK293T cell extract with non-phospho-PRAS40 peptide

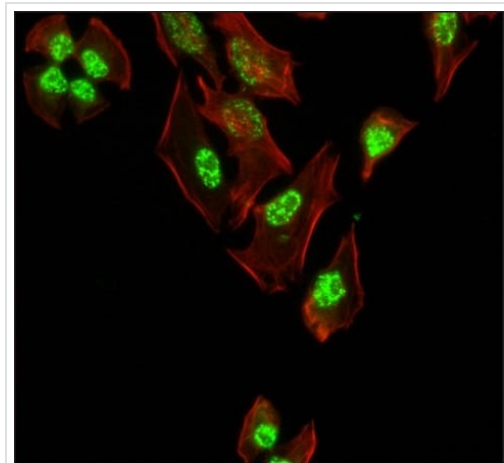
Lane 5 : HEK293T cell extract with immunizing phospho-PRAS40 (pThr246) peptide

Secondary

All lanes : Goat Anti-Rabbit IgG-Peroxidase

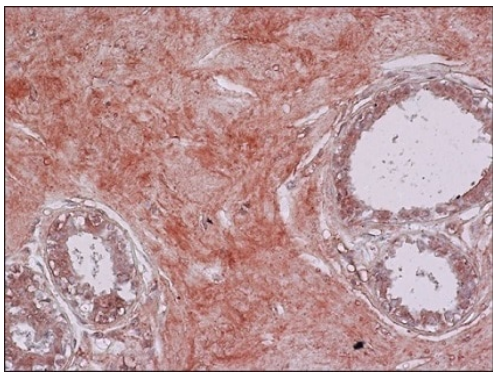
Developed using the ECL technique.

Predicted band size: 27 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PRAS40 (phospho T246) antibody (ab214100)

Immunofluorescent analysis of HeLa cells labeling PRAS40 (phospho T246) with ab214100 at 10 µg/mL dilution, followed by Goat Anti-Rabbit IgG, FITC conjugate (×40 magnification). Actin staining with phalloidin rhodamine conjugate.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRAS40 (phospho T246) antibody (ab214100)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast carcinoma tissue labeling PRAS40 (phospho T246) with ab214100 at 10 µg/ml dilution followed by Goat Anti-Rabbit IgG-Biotin//ExtrAvidin[®]-Peroxidase.

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