abcam

Product datasheet

Anti-PYK2 antibody [E354] ab32448

KO VALIDATED RabMAb

7 References 2 Images

Overview

Product name	Anti-PYK2 antibody [E354]
Description	Rabbit monoclonal [E354] to PYK2
Host species	Rabbit
Specificity	The antibody does not cross-react with other Fak family members.
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF or IHC
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Jurkat whole cell lysate (**ab7899**).
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Clonality	Monoclonal

Clone number	E354
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab32448 in the following tested applications.

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

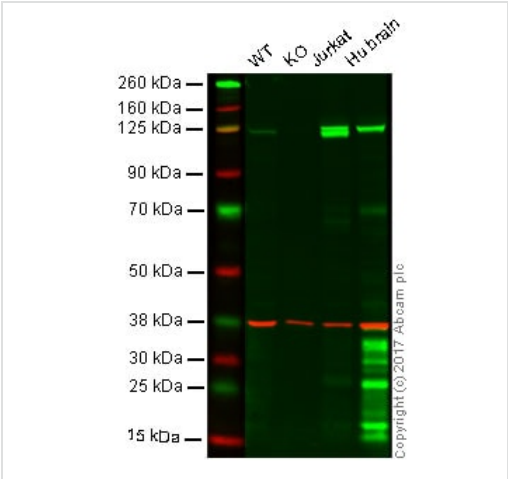
Application	Abreviews	Notes
WB		1/500. Detects a band of approximately 116 kDa (predicted molecular weight: 116 kDa).

Application notes Is unsuitable for Flow Cyt,ICC/IF or IHC.

Target

Function	Involved in calcium induced regulation of ion channel and activation of the map kinase signaling pathway. May represent an important signaling intermediate between neuropeptide activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate neuronal activity. Interacts with the SH2 domain of Grb2. May phosphorylate the voltage-gated potassium channel protein Kv1.2. Its activation is highly correlated with the stimulation of c-Jun N-terminal kinase activity. Involved in osmotic stress-dependent SNCA 'Tyr-125' phosphorylation. In concert with SRC, plays an important role in osteoclastic bone resorption. Both the formation of a SRC-PTK2B complex, and SRC kinase activity are necessary for this function. The Tyr-402 phosphorylated form serves as a docking site for SRC and is important for the organization of the osteoclast actin cytoskeleton and attachment sites and for bone resorption.
Tissue specificity	Most abundant in the brain, with highest levels in amygdala and hippocampus. Low levels in kidney. Also expressed in spleen and lymphocytes.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily. Contains 1 FERM domain. Contains 1 protein kinase domain.
Post-translational modifications	Phosphorylated on tyrosine residues in response to various stimuli that elevate the intracellular calcium concentration, as well as by PKC activation. Recruitment by nephrocystin to cell matrix adhesions initiates Tyr-402 phosphorylation. In monocytes, adherence to substrata is required for tyrosine phosphorylation and kinase activation. Angiotensin II, thapsigargin and L-alpha-lysophosphatidic acid (LPA) also induce autophosphorylation and increase kinase activity.
Cellular localization	Cytoplasm. Cell membrane. Interaction with nephrocystin induces the membrane-association of the kinase.

Images

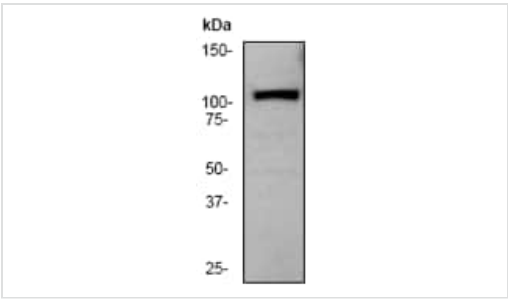


Western blot - Anti-PYK2 antibody [E354] (ab32448)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: PYK2 knockout HAP1 whole cell lysate (20 µg)
Lane 3: Jurkat whole cell lysate (20 µg)
Lane 4: Hu brain whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab32448 observed at 125 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab32448 was shown to specifically react with PYK2 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when PYK2 knockout samples were used. Wild-type and PYK2 knockout samples were subjected to SDS-PAGE. ab32448 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/500 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-PYK2 antibody [E354] (ab32448)

Anti-PYK2 antibody [E354] (ab32448) at 1/500 dilution + Jurkat cell lysate

Predicted band size: 116 kDa
Observed band size: 116 kDa

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors