

Product datasheet

Anti-PYK2 (phospho Y402) antibody ab131543

[3 References](#) [3 Images](#)

Overview

Product name	Anti-PYK2 (phospho Y402) antibody
Description	Rabbit polyclonal to PYK2 (phospho Y402)
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human PYK2 (phospho Y202) conjugated to keyhole limpet haemocyanin. NP_004094.3 Database link: Q14289 Run BLAST with Run BLAST with
Positive control	HeLa cells; Jurkat whole cell lysate (ab7899) (PMA-treated); Human breast carcinoma tissue.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine), 49% PBS PBS without Mg ²⁺ and Ca ²⁺
Purity	Immunogen affinity purified
Purification notes	ab131543 was purified by affinity chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab131543 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 - 1/1000. Predicted molecular weight: 116 kDa.
IHC-P		1/50 - 1/100.
ICC/IF		1/100 - 1/200.

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.

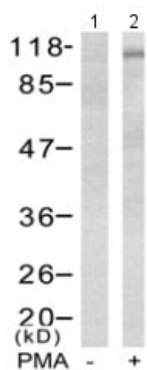
Post-translational modifications

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



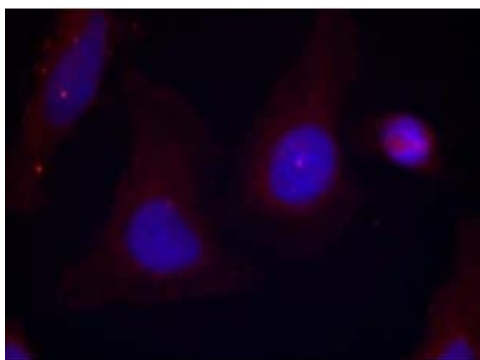
Western blot - Anti-PYK2 (phospho Y402) antibody (ab131543)

All lanes : Anti-PYK2 (phospho Y402) antibody (ab131543) at 1/500 dilution

Lane 1 : Jurkat cell lysate, untreated

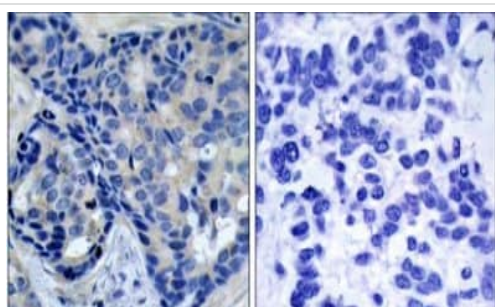
Lane 2 : Jurkat cell lysate, treated with PMA

Predicted band size: 116 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PYK2 (phospho Y402) antibody (ab131543)

Immunofluorescent analysis of methanol-fixed HeLa cells labelling PYK2 (phospho-Y402) with ab131543 at 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PYK2 (phospho Y402) antibody (ab131543)

Immunohistochemical analysis of Human breast carcinoma tissue labelling PYK2 (phospho Y402) with ab131543 at 1/50 dilution. The image on the right is treated with the synthesized peptide.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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