

## Product datasheet

# Anti-PYK2 antibody ab226798

1 References 5 Images

### Overview

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<b>Product name</b>	Anti-PYK2 antibody
<b>Description</b>	Rabbit polyclonal to PYK2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, IHC-P, ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cow
<b>Immunogen</b>	Recombinant fragment within Human PYK2 (internal sequence). The exact sequence is proprietary. Database link: <a href="#">Q14289</a>
<b>Positive control</b>	WB: A431 and HeLa whole cell extracts; Mouse and rat brain extracts. IP: A431 whole cell extract. ICC/IF: HeLa cells. IHC-P: Rat brain tissue.
<b>General notes</b>	<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 &amp; 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 &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; 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&amp;As.</p>

### Properties

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 79% PBS, 20% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab226798** 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
IP		1/100 - 1/500.
IHC-P		1/100 - 1/1000.
ICC/IF		1/100 - 1/1000.
WB		1/500 - 1/3000. Predicted molecular weight: 116 kDa.

## Target

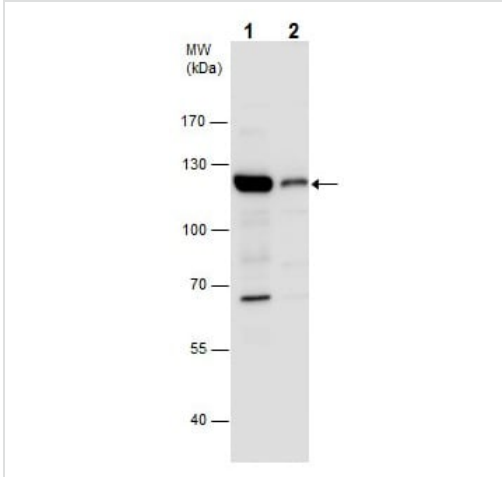
<b>Function</b>	Involved in calcium induced regulation of ion channel and activation of the map kinase signaling pathway. May represent an important signaling intermediate between neuropeptide activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate 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.
<b>Tissue specificity</b>	Most abundant in the brain, with highest levels in amygdala and hippocampus. Low levels in kidney. Also expressed in spleen and lymphocytes.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily. Contains 1 FERM domain. Contains 1 protein kinase domain.
<b>Post-translational modifications</b>	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 (ab226798)

**All lanes :** Anti-PYK2 antibody (ab226798) at 1/1000 dilution

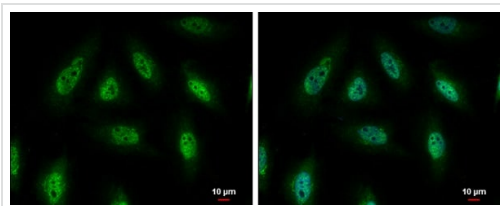
**Lane 1 :** A431 (human epidermoid carcinoma cell line) whole cell extract

**Lane 2 :** HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 116 kDa

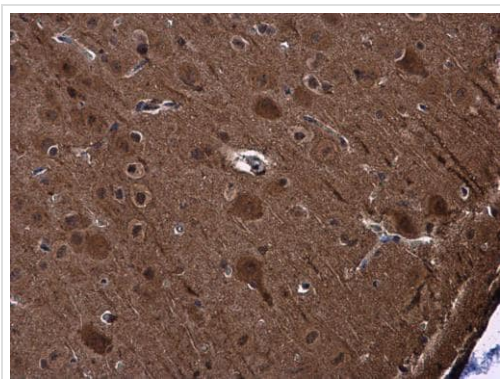
7.5% SDS-PAGE gel.



Immunocytochemistry/ Immunofluorescence - Anti-PYK2 antibody (ab226798)

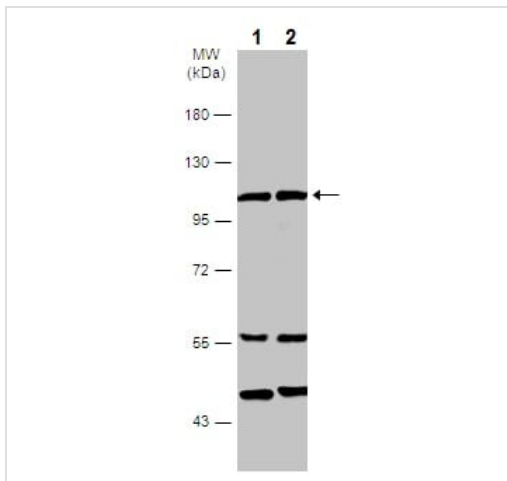
HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for PYK2 (green) using ab226798 at 1/500 dilution in ICC/IF. Cells were fixed in 4% paraformaldehyde at RT for 15 minutes.

Blue: Hoechst 33342 staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PYK2 antibody (ab226798)

Paraffin-embedded rat brain tissue stained for PYK2 using ab226798 at 1/500 dilution in immunohistochemical analysis.



Western blot - Anti-PYK2 antibody (ab226798)

**All lanes :** Anti-PYK2 antibody (ab226798) at 1/1000 dilution

**Lane 1 :** Mouse brain extract

**Lane 2 :** Rat brain extract

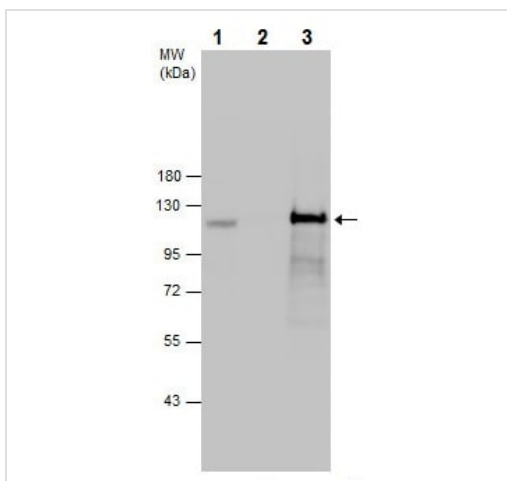
Lysates/proteins at 50 µg per lane.

**Secondary**

**All lanes :** HRP-conjugated anti-rabbit IgG antibody

**Predicted band size:** 116 kDa

7.5% SDS-PAGE gel.



Immunoprecipitation - Anti-PYK2 antibody (ab226798)

PYK2 was immunoprecipitated from A431 (human epidermoid carcinoma cell line) whole cell extract with 5 µg ab226798. Western blot was performed from the immunoprecipitate using ab226798.

Lane 1: A431 whole cell extract.

Lane 1: Control IgG IP in A431 whole cell extract.

Lane 2: ab226798 IP in A431 whole cell extract.

Anti-Rabbit IgG was used as a secondary reagent.

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

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