


Product datasheet

Anti-PYK2 antibody ab226798

[2 References](#) [5 Images](#)

Overview

Product name	Anti-PYK2 antibody
Description	Rabbit polyclonal to PYK2
Host species	Rabbit
Tested applications	Suitable for: IP, IHC-P, ICC/IF, WB
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Cow 
Immunogen	Recombinant fragment within Human PYK2 (internal sequence). The exact sequence is proprietary. Database link: Q14289
Positive control	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.
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 +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 79% PBS, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226798 in the following tested applications.

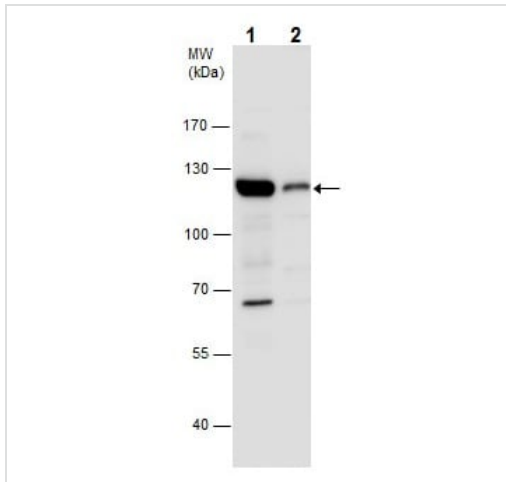
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

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 (ab226798)

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

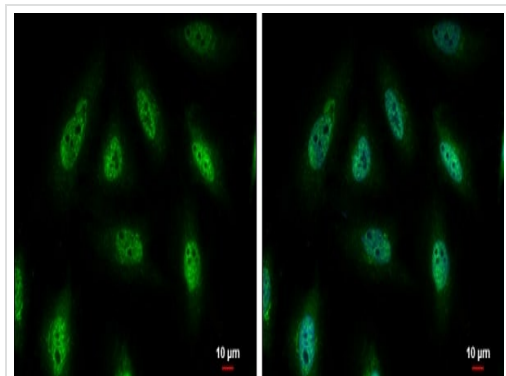
Lane 1 : A431 (human epidermoid carcinoma cell line) whole cell extract

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

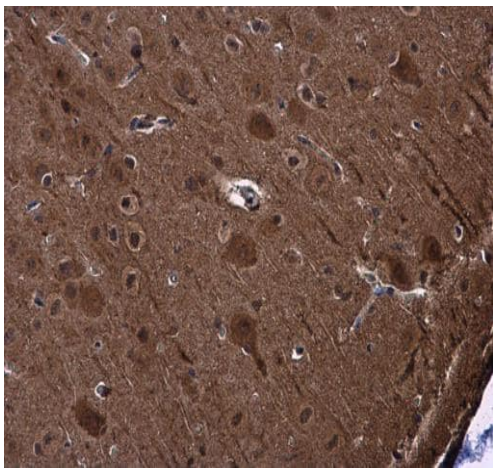
7.5% SDS-PAGE gel.



Immunocytochemistry/ Immunofluorescence - Anti-PYK2 antibody (ab226798)

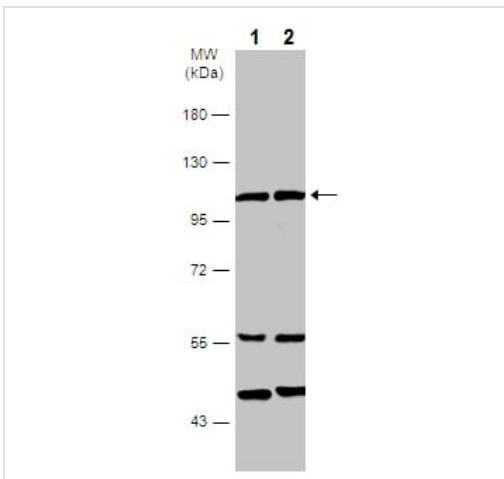
HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for PYK2 (green) using ab226798 at 1/500 dilution in ICC/IF. Cells were fixed in 4% paraformaldehyde at RT for 15 minutes.

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

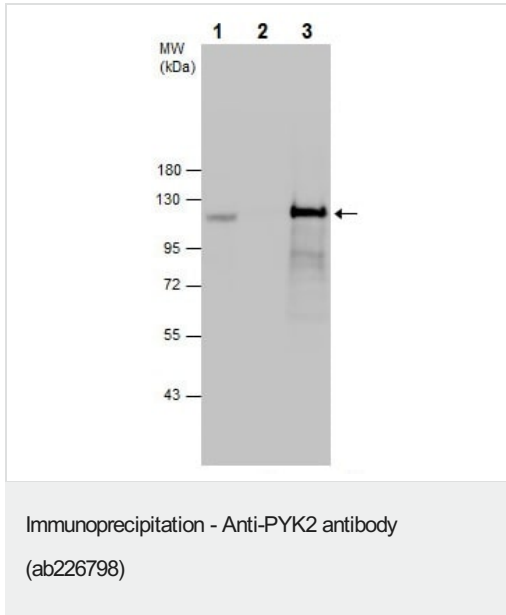
Lysates/proteins at 50 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG antibody

Predicted band size: 116 kDa

7.5% SDS-PAGE gel.



PYK2 was immunoprecipitated from A431 (human epidermoid carcinoma cell line) whole cell extract with 5 μ g 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"

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