


Product datasheet

Anti-PYK2 (phospho Y881) antibody ab4801

[1 References](#) [1 Image](#)

Overview

Product name	Anti-PYK2 (phospho Y881) antibody
Description	Rabbit polyclonal to PYK2 (phospho Y881)
Host species	Rabbit
Specificity	Some cross-reactivity with Focal Adhesion Kinase phosphorylated at tyrosine 925 (the corresponding Grb 2 binding site) may be observed in cases where Focal Adhesion Kinase is overexpressed relative to PYK 2 in the same cell system.
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Chicken Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide corresponding to Human PYK2 (phospho Y881).
Positive control	WB: Chicken embryo fibroblasts plated on fibronectin
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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from rabbit serum by epitope-specific chromatography. The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated PYK 2. The final product is generated by affinity chromatography using a PYK 2-derived peptide that is phosphorylated at tyrosine 881.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4801 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		

Application notes

IHC-Fr: Use at an assay dependent dilution.

WB: 1/1000. Predicted molecular weight: 116 kDa. Can be blocked with **PYK 2 (phospho) antibody panel** or **CEF whole cell lysate, positive / negative for PYK 2 (pair)**.

Not tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

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.

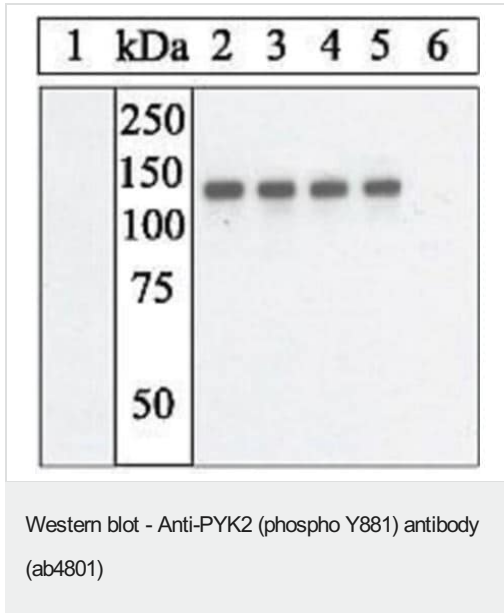
Post-translational modifications

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



All lanes : Anti-PYK2 (phospho Y881) antibody (ab4801) at 1/1000 dilution

Lane 1 : Mock-transfected - Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Lane 2 : Only expression vector transfected - Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Lane 3 : Pyk2 (pY⁸⁸¹)NP expression vector transfected - Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Lane 4 : FAK (pY⁹²⁵) expression vector transfected- Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Lane 5 : Generic pY expression vector transfected - Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Lane 6 : Pyk2 (pY⁸⁸¹)P - Primary chicken embryo fibroblasts plated on fibronectin, pervanadate-treated

Predicted band size: 116 kDa

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