



# PYK2 (phospho Tyr579) Polyclonal Antibody

|                           |                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>         | BYab-14503                                                                                                                                                                                                                                                                                                                       |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                              |
| <b>Reactivity</b>         | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                  |
| <b>Applications</b>       | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>          | PTK2B                                                                                                                                                                                                                                                                                                                            |
| <b>Protein Name</b>       | Protein-tyrosine kinase 2-beta                                                                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human PYK2 around the phosphorylation site of Tyr579. AA range:545-594                                                                                                                                                                                       |
| <b>Specificity</b>        | Phospho-PYK2 (Y579) Polyclonal Antibody detects endogenous levels of PYK2 protein only when phosphorylated at Y579.                                                                                                                                                                                                              |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                          |
| <b>Source</b>             | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                           |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                            |
| <b>Dilution</b>           | WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200                                                                                                                                                                                                                                                             |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                             |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>           | PTK2B; FAK2; PYK2; RAFTK; Protein-tyrosine kinase 2-beta; Calcium-dependent tyrosine kinase; CADTK; Calcium-regulated non-receptor proline-rich tyrosine kinase; Cell adhesion kinase beta; CAK-beta; CAKB; Focal adhesion kinase 2; FADK 2; Pro                                                                                 |
| <b>Observed Band</b>      | 116kD                                                                                                                                                                                                                                                                                                                            |
| <b>Cell Pathway</b>       | Cytoplasm. Cytoplasm, perinuclear region. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, focal adhesion. Cell projection, lamellipodium. Cytoplasm, cell cortex. Nucleus. Interaction with NPHP1 induces the membrane-association of the kinase. Colocalizes with integrins at the cell periphery. |
| <b>Tissue Specificity</b> | Most abundant in the brain, with highest levels in amygdala and hippocampus. Low levels in kidney (at protein level). Also expressed in spleen and lymphocytes.                                                                                                                                                                  |
| <b>Function</b>           | catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,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                       |

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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. PTM: 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

**Background**

This gene encodes a cytoplasmic protein tyrosine kinase which is involved in calcium-induced regulation of ion channels and activation of the map kinase signaling pathway. The encoded protein may represent an important signaling intermediate between neuropeptide-activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate neuronal activity. The encoded protein undergoes rapid tyrosine phosphorylation and activation in response to increases in the intracellular calcium concentration, nicotinic acetylcholine receptor activation, membrane depolarization, or protein kinase C activation. This protein has been shown to bind CRK-associated substrate, nephrocystin, GTPase regulator associated with FAK, and the SH2 domain of GRB2. The encoded protein is a member of the FAK subfamily of protein tyrosine kinases but lacks significant sequence similarity t

**matters needing attention**

Avoid repeated freezing and thawing!

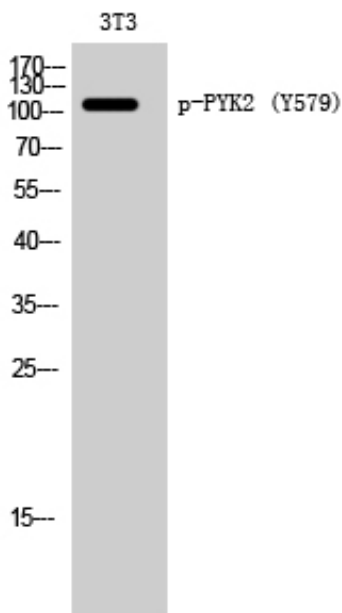
**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

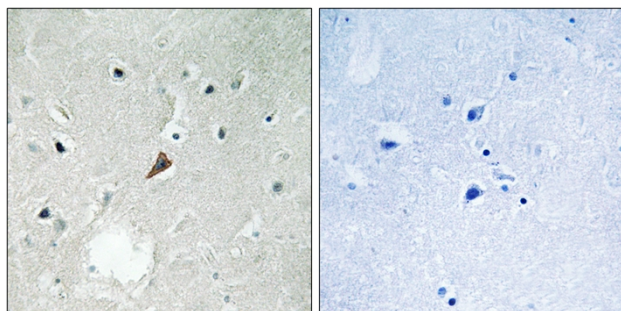
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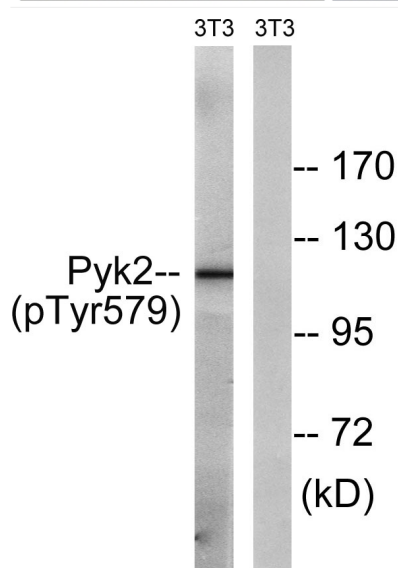
## Products Images



Western Blot analysis of 3T3 cells using  
Phospho-PYK2 (Y579) Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded  
human brain, using PYK2 (Phospho-Tyr579) Antibody.  
The picture on the right is blocked with the phospho  
peptide.



Western blot analysis of lysates from NIH/3T3 cells,  
using PYK2 (Phospho-Tyr579) Antibody. The lane on  
the right is blocked with the phospho peptide.

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