

## PYK2 (Phospho Tyr580) Rabbit pAb

CatalogNo: YP0610

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 130kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:40000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human PYK2 around the phosphorylation site of Tyr580. AA range:546-595

## Specificity

Phospho-PYK2 (Y580) Polyclonal Antibody detects endogenous levels of PYK2 protein only when phosphorylated at Y580. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):DYyKA

## Target Information

**Gene name** PTK2B

**Protein Name** Protein-tyrosine kinase 2-beta

Organism	Gene ID	UniProt ID
Human	<a href="#">2185;</a>	<a href="#">Q14289;</a>
Mouse	<a href="#">19229;</a>	<a href="#">Q9QVP9;</a>
Rat	<a href="#">50646;</a>	<a href="#">P70600;</a>

### Cellular Localization

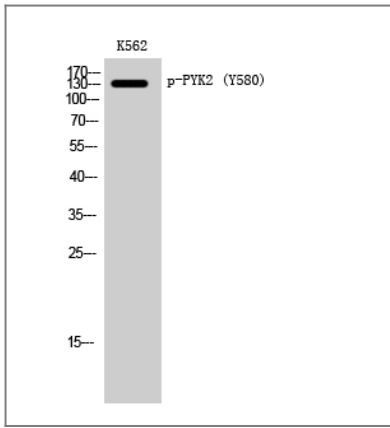
Cytoplasm. Cytoplasm , perinuclear region. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction , focal adhesion. Cell projection , lamellipodium. Cytoplasm , cell cortex. Nucleus. Interaction with NPHP1 induces the membrane-association of the kinase. Colocalizes with integrins at the cell periphery.

**Tissue specificity** 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.

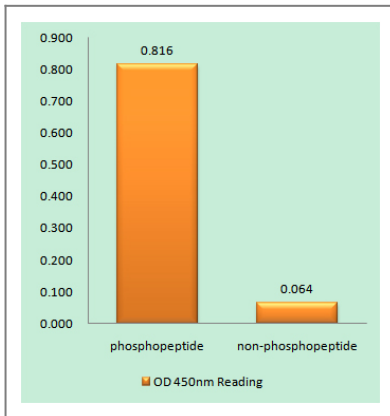
### Function

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 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 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. ,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. ,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily. ,similarity:Contains 1 FERM domain. ,similarity:Contains 1 protein kinase domain. ,subcellular location:Interaction with nephrocystin induces the membrane-association of the kinase. ,subunit:Interacts with Crk-associated substrate (Cas) , PTPNS1 and SH2D3C (By similarity) . Interacts with nephrocystin , ASAP2 , OPHN1L , SKAP2 and TGFB1I1. ,tissue specificity:Most abundant in the brain , with highest levels in amygdala and hippocampus. Low levels in kidney. Also expressed in spleen and lymphocytes. ,

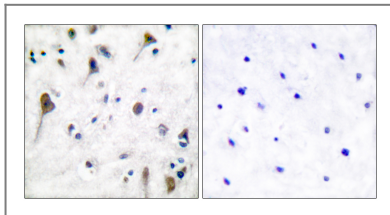
## Validation Data



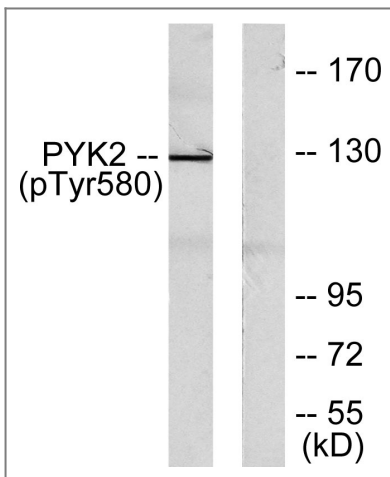
Western Blot analysis of K562 cells using Phospho-PYK2 (Y580) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PYK2 (Phospho-Tyr580) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using PYK2 (Phospho-Tyr580) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells, using PYK2 (Phospho-Tyr580) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

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Please scan the QR code  
to access additional  
product information:  
**PYK2 (Phospho  
Tyr580) Rabbit pAb**

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