Product Name: PYK2 (phospho Tyr579) Rabbit Polyclonal Antibody
Catalog #: APRab05318

Summary

Production Name	PYK2 (phospho Tyr579) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PTK2B
Alternative Names	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
Gene ID	2185.0
SwissProt ID	Q14289.The antiserum was produced against synthesized peptide derived from human PYK2 around the phosphorylation site of Tyr579. AA range:545-594

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	116kDa

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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 tcatalytic 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.,

Research Area

Calcium;Chemokine;Natural killer cell mediated cytotoxicity;Leukocyte transendothelial migration;GnRH;

Image Data

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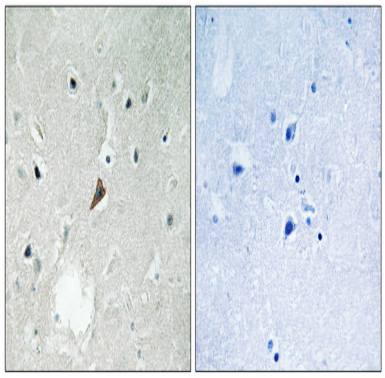
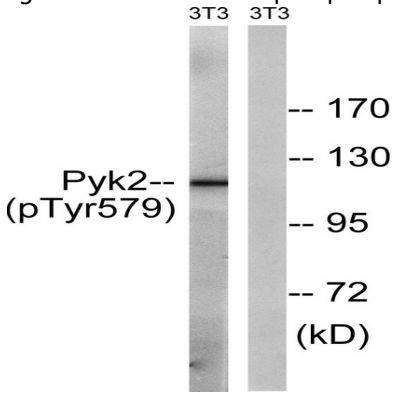
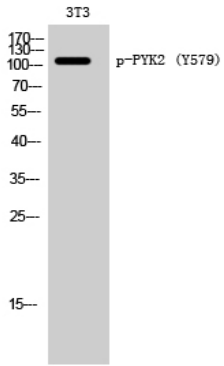


Immunohistochemistry analysis of paraffin-embedded human brain, using PYK2 (Phospho-Tyr579) Antibody. The picture on the right is blocked with the phospho peptide.



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.



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

Note

For research use only.