PYK2 (PT0144R) PT™ Rabbit mAb

CatalogNo: YM8445 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA

MW
- 116kD (Calculated)

116kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0144R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name PTK2B

Protein Name Protein-tyrosine kinase 2-beta

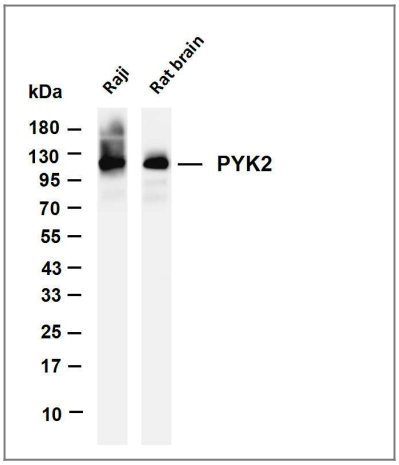
Organism	Gene ID	UniProt ID
Human	4914; 4915; 4916; ;	Q14289;
Mouse	19229;	Q9QVP9;
Rat	25054; 29613; 59109; ;	Q03351; Q63604; Q68G04; ;

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.

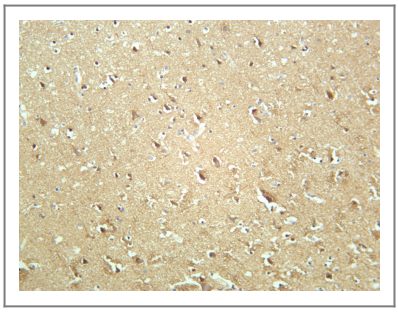
Tissue specificity Isoform TrkA-I is found in most non-neuronal tissues. Isoform TrkA-II is primarily expressed in neuronal cells. TrkA-III is specifically expressed by pluripotent neural stem and neural crest progenitors. {ECO:0000269|PubMed:15488758, ECO:0000269|PubMed:8325889}. Isoform TrkB is expressed in the central and peripheral nervous system. In the central nervous system (CNS), expression is observed in the cerebral cortex, hippocampus, thalamus, choroid plexus, granular layer of the cerebellum, brain stem, and spinal cord. In the peripheral nervous system, it is expressed in many cranial ganglia, the ophthalmic nerve, the vestibular system, multiple facial structures, the submaxillary glands, and dorsal root ganglia. Isoform TrkB-T1 is mainly expressed in the brain but also detected in other tissues including pancreas, kidney and heart. Isoform TrkB-T-Shc is predominantly expressed in the brain. {ECO:0000269|PubMed:11798182, ECO:0000269|PubMed:7936202}.TRKC: Widely expressed but mainly in nervous tissue. Isoform 2 is expressed at higher levels in adult brain than in fetal brain.

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.,

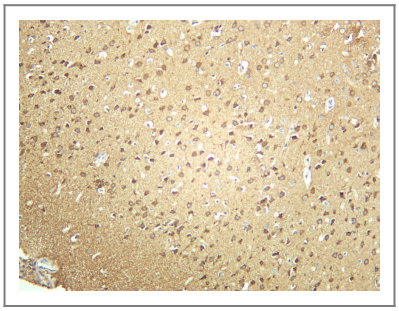
Validation Data



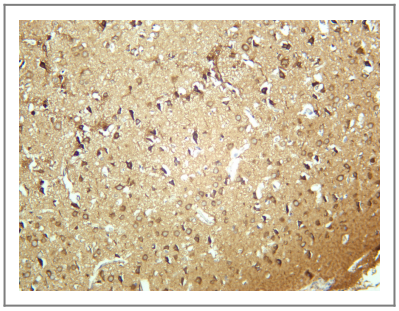
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PYK2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Raji Lane 2: Rat brain Predicted band size: 116kDa Observed band size: 116kDa



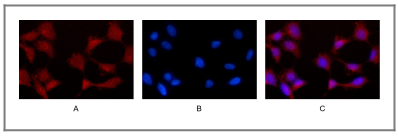
Human brain was stained with anti-PYK2 rabbit antibody



Mouse brain was stained with anti-PYK2 rabbit antibody



Rat brain was stained with anti-PYK2 rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: PYK2 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

Contact information

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Please scan the QR code to access additional product information:
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