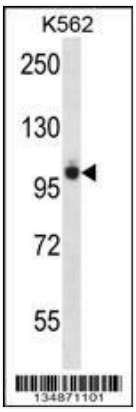
PTK2B Antibody – Rabbit Polyclonal

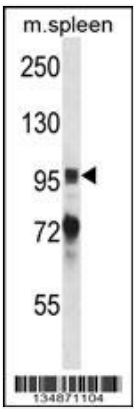
PRODUCT OVERVIEW

Product Name	Ptk2b, Polyclonal Antibody
Full Product Name	Ptk2b, ID (Ptk2b, Fak2, Pyk2, Raftk, Protein-tyrosine kinase 2-beta, Calcium-dependent tyrosine kinase, Calcium-regulated non-receptor proline-rich tyrosine kinase, Cell adhesion kinase beta, Focal adhesion kinase 2, Proline-rich tyrosine kinase 2, Relate
Product Gene Name	anti-Ptk2b antibody
Product Synonym Names	Ptk2b; Fak2; Pyk2; Raftk; Protein-tyrosine kinase 2-beta; Calcium-dependent tyrosine kinase; Calcium-regulated non-receptor proline-rich tyrosine kinase; Cell adhesion kinase beta; Focal adhesion kinase 2; Proline-rich tyrosine kinase 2; Related adhesion focal tyrosine kinase
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	115,794 Da
3D Structure	ModBase 3D Structure for Q9QVP9
Immunogen	Mouse Ptk2b antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 671-701 amino acids from the Central region of Mouse Ptk2b.
Conjugate	APC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-Ptk2b antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-Ptk2b antibody	Immunohistochemistry (IHC), FLISA, Western Blot (WB)
Application Notes for anti-Ptk2b antibody	IHC: 1:10-50 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-Ptk2b antibody	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 (By similarity).

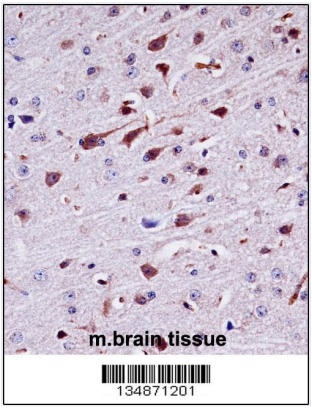
Other Notes	Small volumes of anti-Ptk2b antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Ptk2b purchase	MBS6338811 is an antibody targeting Ptk2b. Also known as Ptk2b, ID (Ptk2b, Fak2, Pyk2, Raftk, Protein-tyrosine kinase 2-beta, Calcium-dependent tyrosine kinase, Calcium-regulated non-receptor proline-rich tyrosine kinase, Cell adhesion kinase beta, Focal adhesion kinase 2, Proline-rich tyrosine kinase 2, Relate. Reactive in Human, Mouse. Host: Rabbit.



Western Blot (WB) of anti-Ptk2b antibody
Mouse Ptk2b Antibody (Center) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the Ptk2b antibody detected the Ptk2b protein (arrow).



Western Blot (WB) of anti-Ptk2b antibody
Mouse Ptk2b Antibody (Center) western blot analysis in mouse spleen tissue lysates (35ug/lane).This demonstrates the Ptk2b antibody detected the Ptk2b protein (arrow).



Immunohistochemistry (IHC) of anti-Ptk2b antibody
Mouse Ptk2b Antibody (Center) (AP14279c)immunohistochemistry analysis in formalin fixed and paraffin embedded mouse brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Mouse Ptk2b Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Ptk2b. It may not necessarily be applicable to this product.

NCBI GI #	241982789
NCBI GeneID	19229
NCBI Accession #	NP_001155838.1
UniProt Primary Accession #	Q9QVP9
UniProt Secondary Accession #	B2RQ16; G3X8V1
UniProt Related Accession #	Q9QVP9
GenBank Nucleotide #	NM_001162366.2
NCBI Official Full Name	protein-tyrosine kinase 2-beta isoform 1

NCBI Official Synonym Full Names	PTK2 protein tyrosine kinase 2 beta
NCBI Official Symbol	Ptk2b
NCBI Official Synonym Symbols	CAKB; FAK2; PYK2; CADTK; FADK2; Raftk; CAKbeta; E430023O05Rik
UniProt Protein Name	Protein-tyrosine kinase 2-beta
UniProt Synonym Protein Names	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; Proline-rich tyrosine kinase 2; Related adhesion focal tyrosine kinase; RAFTK
Protein Family	Protein-tyrosine kinase
UniProt Gene Name	Ptk2b
UniProt Synonym Gene Names	Fak2; Pyk2; Raftk; CADTK; CAK-beta; CAKB; FADK 2; RAFTK
NCBI Protein Information	protein-tyrosine kinase 2-beta
UniProt Comments for Ptk2b	Non-receptor protein-tyrosine kinase that regulates reorganization of the actin cytoskeleton, cell polarization, cell migration, adhesion, spreading and bone remodeling. Plays a role in the regulation of the humoral immune response, and is required for normal levels of marginal B-cells in the spleen and normal migration of splenic B-cells. Required for normal macrophage polarization and migration towards sites of inflammation. Regulates cytoskeleton rearrangement and cell spreading in T-cells, and contributes to the regulation of T-cell responses. Promotes osteoclastic bone resorption; this requires both PTK2B/PYK2 and SRC. May inhibit differentiation and activity of osteoprogenitor cells. Functions in signaling downstream of integrin and collagen receptors, immune receptors, G-protein coupled receptors (GPCR), cytokine, chemokine and growth factor receptors, and mediates responses to cellular stress. Forms multisubunit signaling complexes with SRC and SRC family members upon activation; this leads to the phosphorylation of additional tyrosine residues, creating binding sites for scaffold proteins, effectors and substrates. Regulates numerous signaling pathways. Promotes activation of phosphatidylinositol 3-kinase and of the AKT1 signaling cascade. Promotes activation of NOS3. Regulates production of the cellular messenger cGMP. Promotes activation of the MAP kinase signaling cascade, including activation of MAPK1/ERK2, MAPK3/ERK1 and MAPK8/JNK1. Promotes activation of Rho family GTPases, such as RHOA and RAC1. Recruits the ubiquitin ligase MDM2 to P53/TP53 in the nucleus, and thereby regulates P53/TP53 activity, P53/TP53 ubiquitination and proteasomal degradation. Acts as a scaffold, binding to both PDPK1 and SRC, thereby allowing SRC to phosphorylate PDPK1 at 'Tyr-9, 'Tyr-373', and 'Tyr-376' (). Promotes phosphorylation of NMDA receptors by SRC family members, and thereby contributes to the regulation of NMDA receptor ion channel activity and intracellular Ca2+ levels. May also regulate potassium ion transport by phosphorylation of potassium channel subunits. Phosphorylates SRC; this increases SRC kinase activity. Phosphorylates ASAP1, NPHP1, KCNA2 and SHC1. Promotes phosphorylation of ASAP2, RHOU and PXN; this requires both SRC and PTK2/PYK2 ().
Research Articles on Ptk2b	**1.** Osteoprotegerin may induce podosome reassembly and peripheral adhesive structure detachment by modulating phosphorylation of Pyk2 and Src and their intracellular distribution in osteoclasts.
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