

Bioactive

Full-Length

# PTK2B (Human) Recombinant Protein

Catalog # P5800

Size 5 ug

## Applications



## Result of activity analysis

Result of activity analysis

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## Specification

<b>Product Description</b>	Human PTK2B (NP_775267.1, 1 a.a. - 967 a.a.) full-length recombinant protein with GST tag expressed in Baculovirus infected Sf21 cells.
<b>Host</b>	insect
<b>Theoretical MW (kDa)</b>	138
<b>Form</b>	Liquid
<b>Preparation Method</b>	Baculovirus infected insect cell (Sf21) expression system
<b>Purification</b>	Glutathione sepharose chromatography
<b>Purity</b>	74 % by SDS-PAGE/CBB staining

Activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip3000. Substrate : Blk/Lyntide. ATP: 100 $\mu$ M.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — PTK2B

Entrez GeneID	<a href="#">2185</a>
Protein Accession#	<a href="#">NP_775267.1</a>
Gene Name	PTK2B
Gene Alias	CADTK, CAKB, FADK2, FAK2, FRNK, PKB, PTK, PYK2, RAFTK
Gene Description	PTK2B protein tyrosine kinase 2 beta
Omim ID	<a href="#">601212</a>
Gene Ontology	<a href="#">Hyperlink</a>

**Gene Summary**

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 to kinases from other subfamilies. Four transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq]

**Other Designations**

CAK beta|OTTHUMP00000128275|OTTHUMP00000162913|calcium-dependent tyrosine kinase|cell adhesion kinase beta|focal adhesion kinase 2|proline-rich tyrosine kinase 2|protein kinase B|protein tyrosine kinase 2 beta|related adhesion focal tyrosine kinase

**Pathway**

- [Calcium signaling pathway](#)
- [Chemokine signaling pathway](#)
- [GnRH signaling pathway](#)
- [Leukocyte transendothelial migration](#)
- [Natural killer cell mediated cytotoxicity](#)

**Disease**

- [Cardiovascular Diseases](#)
- [Cell Transformation](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [HIV Infections](#)
- [Hypertension](#)
- [Insulin Resistance](#)
- [Kidney Failure](#)

- [Melanoma](#)
- [Skin Neoplasms](#)
- [Tobacco Use Disorder](#)