

## Product datasheet for TP527424

### Ptk2b (NM\_001162366) Mouse Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Purified recombinant protein of Mouse PTK2 protein tyrosine kinase 2 beta (Ptk2b), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug  
**Species:** Mouse  
**Expression Host:** HEK293T  
**Expression cDNA** >MR227424 protein sequence  
**Clone or AA Sequence:** Red=Cloning site Green=Tags(s)

MSGVSEPLSRVKVGTLLRRPEGPPPEPMVWVVDVEKEDVRILKVCFYNSFNPGKNFKLVKCTVQTEIQEI  
ITSILLSGRIGPNIQLAECYGLRLKHKMSDEIHWLHPQMTVGEVQDKYECLHVEAEWRYDLQIRYLPEDF  
MESLKEDRTLLLYFYQQLRNDYMQRYASKVSEGMALQLGCLLRRFFKDMPHNALDKSNFELLEKEVGL  
DLFFPKQMENLKPQFRKMIQQTFFQYASLREEECVMKFFNTLAGFANIDQETYRCELIQGWNITVDLV  
IGPKGIRQLTSQDTKPTCLAEFKQIRSIRCLPLEETQAVLQLGIEGAPQSLSIKTSSLAEENMADLIDG  
YCRLQGEHKGSLIMHAKKDGEKRNSLPQIPTLNLEARRSHLSESCSIESDIYAEIPDETLRRPGGPQYGV  
AREEVVLNRLGEGFFGEVYEGVYTNHKGEKINVAVKTCCKDCTQDNKEKFMSEAVIMKNLDHPHIVKLI  
GIIIEEPTWIIMELYPYGELGHYLERNKNSLKVPTLVLYTLQICKAMAYLESINCVHRDIAVRNIVLWASP  
ECVKLGDFGLSRYIEDYKASVTRLPKWMSPESINFRRFTTASDVWVFAVCMWEILSFGKQPPFFWLE  
NKDVIGVLEKGDRLPKPELCPVLYTLMTRCWDYDPSDRPRFTELVCSLSDIYQMEKDIAIEQERNARYR  
PPKILEPTTFQEPKPSRKYRPPPQTNLLAPKLQFQVPEGLCASSPTLTSPMEYPSVNSLHTPPLHR  
HNVFKRHSMREEDFIRPSSREEAQQWLWEAEKIKMKQVLERQQKQMVEDSQWLRREERCLDPMVYMNDKSP  
LTPEKEAGYTEFTGPPQKPPRLGAQSIQPTANLDRDLDLHYHNVMTLVEAVLELKNKLGQLPPEDYVVV  
KNVGLNLRKLGISVDDLLPSLPASSRTEIEGTQKLLNKDLAELINKMKLAQQNAVTSLSLSEDCRQMLTAS  
HTLAVDAKNLLDAVDQAKVANLAHPPAE

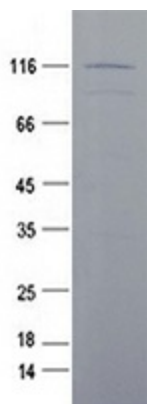
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Tag:** C-MYC/DDK  
**Predicted MW:** 115.8 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_001155838</a>
<b>Locus ID:</b>	19229
<b>UniProt ID:</b>	<a href="#">Q9QVP9</a> , <a href="#">Q3UDE9</a> , <a href="#">K7QD41</a>
<b>RefSeq Size:</b>	3881
<b>Cytogenetics:</b>	14 34.36 cM
<b>RefSeq ORF:</b>	3030
<b>Synonyms:</b>	CADTK; CAKB; CAKbeta; E430023O05Rik; FADK2; FAK2; PYK2; Raftk
<b>Summary:</b>	<p>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' (By similarity). Promotes phosphorylation of NMDA receptors by SRC family members, and thereby contributes to the regulation of NMDA receptor ion channel activity and intracellular Ca(2+) 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 (By similarity).[UniProtKB/Swiss-Prot Function]</p>

**Product images:**

Purified recombinant protein Ptk2b was analyzed by SDS-PAGE gel and Coomossie Blue Staining.