

Product datasheet for **TP511154**

Ptk2 (BC030180) Mouse Recombinant Protein

Product data:

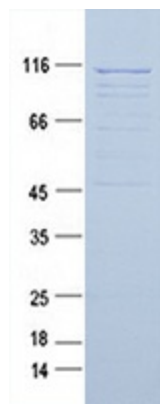
Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse PTK2 protein tyrosine kinase 2 (cDNA clone MGC:29135 IMAGE:5038658), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>Peptide sequence encoded by MR211154 Blue=ORF Red=Cloning site Green=Tag(s) MAAAYLDPNLNHTPSSSTKTHLGTGMERSPGTMERVLKVFHYFESSSEPTTWASIIRHG DATDVRGIIQ KIVDSHKVKHVACYGFRLSHLRSEEVHWLHVDMGVSSVREKYELAHPP EEWKYELRIRYLPKGFLNQFT EDKPTLNFFYQQVKS DYMLEIADQVDQEIALKLGCL EIRRSYWEMRGNAL EKKSNYEVL EKDVG LKRFF PKSL LDSVKAKTLRKLIQQTFRQFANLNREESILKFFEILSPVYRFDKECFKALGSSWII SVELAIGP EEGISYLTDKGCNPTHLADFNQVQTIQYSNSEDKDRKGMLQLKIAGAPEPLTVTAPSLTIAENMADLID GYCRLVNGATQSFIRPQKEGERALPSIPKLANSEKQGMRTHAVSVSETDDYAEIIDEEDTYTMPSTRD YEIQRERIELGRCIGEGQFGDVHQGVYLS PENPALAVAIKTCNKCTSDSVREKFLQEALTM RQFDHPhi VKLIGVITENPVWIIMELCTLGELRSFLQVRKYS LDASLILYAYQLSTALAYLESKR FVHRDIAARNV LVSSNDCVKLGDFGLSRYMEDSTYYKASKGKLPIKWMAPESINFR RFTSASDVWMFGVCMWEILMHGVK PFQGVKNNDVIGRIENGERLPMPPNCPPTLYSLMTKCWAYDPSRRPRFT ELKAQLSTILEEEKVQQEER MRMESRRQATVSWDSGG SDEAPPKPSRPGYPSRSSEGFYPS PQHVMVQTNHYQVSGYPGSHGIPAMAG S IYPGQASLLDQTELWNHRPQEMSMWQPSVEDSAALDLRGMGQVLPPHLM EERLIRQQQEMEEDQRW LEK EERFLKPDVRLSRGSI DREDGSFQGPTGNQH IYQPVGKPDPAAPPKKPPRPGAPGHLSNLSSISSPADS YNEGKVGICACAM TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	Recombinant protein using MR211154 also available, TP511154 C-MYC/DDK
Predicted MW:	103.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method


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Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Locus ID:	14083
UniProt ID:	<u>P34152</u>
RefSeq Size:	4681
Cytogenetics:	15 33.94 cM
RefSeq ORF:	2733
Synonyms:	Fadk; FAK; FRNK; mKIAA4203; p125FAK

Summary:

Non-receptor protein-tyrosine kinase that plays an essential role in regulating cell migration, adhesion, spreading, reorganization of the actin cytoskeleton, formation and disassembly of focal adhesions and cell protrusions, cell cycle progression, cell proliferation and apoptosis. Required for early embryonic development and placenta development. Required for embryonic angiogenesis, normal cardiomyocyte migration and proliferation, and normal heart development. Regulates axon growth and neuronal cell migration, axon branching and synapse formation; required for normal development of the nervous system. Plays a role in osteogenesis and differentiation of osteoblasts. Functions in integrin signal transduction, but also in signaling downstream of numerous growth factor receptors, G-protein coupled receptors (GPCR), EPHA2, netrin receptors and LDL receptors. 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 the AKT1 signaling cascade. Promotes activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling cascade. Promotes localized and transient activation of guanine nucleotide exchange factors (GEFs) and GTPase-activating proteins (GAPs), and thereby modulates the activity of Rho family GTPases. Signaling via CAS family members mediates activation of RAC1. Recruits the ubiquitin ligase MDM2 to P53/TP53 in the nucleus, and thereby regulates P53/TP53 activity, P53/TP53 ubiquitination and proteasomal degradation. Phosphorylates SRC; this increases SRC kinase activity. Phosphorylates ACTN1, ARHGEF7, GRB7, RET and WASL. Promotes phosphorylation of PXN and STAT1; most likely PXN and STAT1 are phosphorylated by a SRC family kinase that is recruited to autophosphorylated PTK2/FAK1, rather than by PTK2/FAK1 itself. Promotes phosphorylation of BCAR1; GIT2 and SHC1; this requires both SRC and PTK2/FAK1. Promotes phosphorylation of BMX and PIK3R1. Isoform 9 (FRNK) does not contain a kinase domain and inhibits PTK2/FAK1 phosphorylation and signaling. Its enhanced expression can attenuate the nuclear accumulation of LPXN and limit its ability to enhance serum response factor (SRF)-dependent gene transcription (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:


Purified recombinant protein Ptk2 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.