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Product datasheet for TP506379

Ptpn2 (NM_001127177) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse protein tyrosine phosphatase, non-receptor type 2 (Ptpn2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR206379 protein sequence Red=Cloning site Green=Tags(s) MSATIEREFEELDAQCRWQPLYLEIRNESHDYPHRVAKFPENRNRNRYRDVSPYDHSRVKLQSTENDYIN ASLVDIEEAQRSYILTQGPLPNTCCHFWLMVWQQKTKAVVMLNRTVEKESVKCAQYWPTDDREMVFKETG FSVKLLSEDVKSYYTVHLLQLENINTGETRTISHFHYTTWPDFGVPESPASFLNFLFKVRESGCLTPDHG PAVIHCSAGIGRSGTFSLVDTCLVLMEKGEDVNVKQLLLNMRKYRMGLIQTPDQLRFSYMAIIEGAKYTK GDSNIQKRWKELSKEDLSPICDHSQNRVMVEKYNGKRIGSEDEKLTGLPSKVQDTVEESSESILRKRIRE DRKATTAQKVQQMKQRLNETERKRKRWLYWQPILTKMGFVSVILVGALVGWTLLFH TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	47.4 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
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.
RefSeq:	NP_001120649
Locus ID:	19255
UniProt ID:	Q06180

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RefSeq Size:	8423
Cytogenetics:	18 E1
RefSeq ORF:	1221
Synonyms:	AI325124; Ptpt; TC-PTP
Summary:	Non-receptor type tyrosine-specific phosphatase that dephosphorylates receptor protein tyrosine kinases including INSR, EGFR, CSF1R, PDGFR. Also dephosphorylates non-receptor protein tyrosine kinases like JAK1, JAK2, JAK3, Src family kinases, STAT1, STAT3 and STAT6 either in the nucleus or the cytoplasm. Negatively regulates numerous signaling pathways and biological processes like hematopoiesis, inflammatory response, cell proliferation and differentiation, and glucose homeostasis. Plays a multifaceted and important role in the development of the immune system. Functions in T-cell receptor signaling through dephosphorylation of FYN and LCK to control T-cells differentiation and activation. Dephosphorylates CSF1R, negatively regulating its downstream signaling and macrophage differentiation. Negatively regulates cytokine (IL2/interleukin-2 and interferon)-mediated signaling through dephosphorylation of the cytoplasmic kinases JAK1, JAK3 and their substrate STAT1, that propagate signaling downstream of the cytokine receptors. Also regulates the IL6/interleukin-6 and IL4/interleukin-4 cytokine signaling through dephosphorylation of STAT3 and STAT6 respectively. In addition to the immune system, it is involved in anchorage-dependent, negative regulation of EGF-stimulated cell growth. Activated by the integrin ITGA1/ITGB1, it dephosphorylates EGFR and negatively regulates EGF signaling. Dephosphorylates PDGFRB and negatively regulates platelet-derived growth factor receptor-beta signaling pathway and therefore cell proliferation. Negatively regulates tumor necrosis factor-mediated signaling downstream via MAPK through SRC dephosphorylation. May also regulate the hepatocyte growth factor receptor signaling pathway through dephosphorylation of the hepatocyte growth factor receptor MET. Plays also an important role in glucose homeostasis. For instance, negatively regulates the insulin receptor signaling pathway through the dephosphorylation of INSR and control gluconeogenesis and liver glucose production through negative regulation of the IL6 signaling pathways. May also bind DNA. [UniProtKB/Swiss-Prot Function]