

Product datasheet for **MC200773**

Ptpn2 (BC008269) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ptpn2 (BC008269) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ptpn2
Synonyms:	A1325124; Ptppt; TC-PTP
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC008269
 GCGCCACAGTGCCAGCGCTCTCCCCGATAGAGCGGGGCCGAGCCTGTCCGCTGTGGTAGTTCGCTCG
 CGCTGCCCCGCCCATGTGCGCAACCATCGAGCGGGAGTTCGAGGAACTGGATGCTCAGTGTGCTGGC
 AGCCGTTACTTGAAAATTCGAAATGAATCCCATGACTATCCTCATAGAGTGGCCAAGTTCCAGAAAA
 CAGAAACCGAAACAGATACAGAGATGTAAGCCCATATGATCACAGTCGTGTTAACTGCAAAGTACTGAA
 AATGATTATATTAATGCCAGCTTAGTTGACATAGAAGAGGCACAAAGAAGTTACATCTTAACACAGGGCC
 CACTTCCGAACACATGCTGCCATTTCTGGCTCATGGTGTGGCAGCAAAAGACCAAAGCAGTTGTCATGCT
 AAACCGAACTGTAGAAAAGAATCGGTTAAATGTGCACAGTACTGGCCAACGGATGACAGAGAAATGGTG
 TTTAAGGAAACGGGATTCAAGTGTGAAGCTTATCTGAAGATGTAATAATCATATTATACAGTACATCTAC
 TACAGTTAGAAAATATCAATACTGGTGAACCAGAACCATATCTCACTTCCATTATACCCTGGCCAGA
 TTTTGGGTTCCAGAGTACCAGCTTCAATTTCTAACTTCTTGTAAAGTTAGAGAATCTGGTTGTTTG
 ACCCTGACCATGGACCTGCAGTATCCATTGCAGTGCGGGCATCGGGCCTCTGGCACCTTCTCTCTTG
 TAGATACCTGTCTGTTCTGATGAAAAAGGAGAGGATGTTAATGTGAAACAATTATTACTGAATATGAG
 AAAGTATCGAATGGGACTTATTCAGACACCGACCAACTCAGATTCTCCTACATGGCCATAATAGAAGGA
 GCAAAGTACACAAAAGGAGATTCAAATATACAGAAACGGTGGAAAGAAGTTTCTAAAGAAGATTTATCTC
 CTTTTGTGATCATTACAGAACAGAGTATGGTTGAGAAGTACAATGGGAAGAGAATAGTTTCAGAAGA
 TGAAGAAGTTAACAGGGCTTCTTCTAAGGTGCAGGATACTGTGGAGGAGAGCAGTGAGAGCATTCTACGG
 AAACGTATTCGAGAGGATAGAAAGGCTACGACGGCTCAGAAGGTGCAGCAGATGAAACAGAGGCTAAATG
 AAAGTGAACGAAAAAGAAAAGGTGGTTATATTGGCAACCTATTCTCACTAAGATGGGGTTTGTGTCAGT
 CATTTTGGTTGGCGCTTTGGTTGGCTGGACACTGCTTTTTCACTAAATGTTCTATAAATTAATAGTTTTA
 CCCAGCACCTTTCTGCACTAGTAGCTGACCGTGGTGCATTAATCTCAAGGGTTTGTAGCAATGCCTCAT
 ACCCAGAAACACTGCGCTAGAGTAGACATCAGCCAGATAAGGGATATTACAGTACAAGCCAGCATCTC
 AGGACTCATCACTGCAGGTTTCTCTGAGACCCAGACTGTCAATGGCTCACAATAAAGCAAGCAGCTTG
 TTGGACTGTGTTACTTCTTACAGCTGCGTTCACACCAGTGTATTGAGAAATCCTTTATCCCAAGGATTGG
 CTTTTGGAGGCCTTCTGGATTTTAACTGCACCTGATATAAGCAATAAACATTGTGGTTTTTTTCTACAT
 TATTAATGAAAGAAAATATCCTTTAAACAATGTATGTAATGTAAATGTACTGTTGAAATGGGCATTAC
 AACTTTATATAACCATTTTAGGGTAAATATATTTTATAAGTACCTATTTAATCTTACTTTTGTAGTTAAA
 TGTACTTTTTAAAGGTTCAATCTGAAAGTCTGTTATCATAGAAAATAAATTGTATGTTGACTCAGTTGT AAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: BC008269

Insert Size: 1221 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC008269](#), [AAH08269](#)

RefSeq Size: 1906 bp

RefSeq ORF: 1221 bp

Locus ID: 19255

Cytogenetics: 18 E1

Gene 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]