

Product datasheet for RC216402

PTPN13 (NM_080685) Human Tagged ORF Clone

Product data:

| | |
|--------------------------|-----------------------------------------------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | PTPN13 (NM_080685) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | PTPN13 |
| Synonyms: | FAP-1; hPTP1E; PNP1; PTP-BAS; PTP-BL; PTP1E; PTPL1; PTPLE |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |
| ORF Nucleotide Sequence: | >RC216402 representing NM_080685 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCACGTGTCACTAGCTGAGGCCCTGGAGTTTCGGGGTGGACCACTTCAGGAGGAAGAAATATGGGCTG
TATTAATCAAAGTGCTGAAAGTCTCCAAGAATTATTCAGAAAAGTAAGCCTAGCTGATCCTGCTGCCCT
TGGCTTCACTATTCTCCATGGTCTCTGCTGTTGCTGCCATCTGGTAGTGTGTCATTTACAGATGAAAAT
ATTTCCAATCAGGATCTTCGAGCATTCACTGCACCAGAGGTTCTTCAAAAATCAGTCACTAACTTCTCTCT
CAGATGTTGAAAAGATCCACATTTATTCTCTTGGAAATGACACTGTATTGGGGGGCTGATTATGAAGTGCC
TCAGAGCCAACCTATTAAGCTTGGAGATCATCTCAACAGCATACTGCTTGGAAATGTGTGAGGATGTTATT
TACGCTCGAGTTTCTGTTTCGGACTGTGCTGGATGCTTGCAGTGCCACATTAGGAATAGCAATTGTGCAC
CCTCATTTTCTACGTGAAACACTTGGTAAAATGGTTCTGGGAAATCTTCTGGGACAGATCAGCTTTC
CTGTAACAGTGAACAAAAGCCTGATCGAAGCCAGGCTATTCGAGATCGATTGCGAGGAAAAGGATTACCA
ACAGGAAGAAGCTCTACTTCTGATGTACTAGACATACAAAAGCCTCCACTCTCTCATCAGACCTTTCTTA
ACAAAAGGCTTAGTAAATCTATGGGATTTCTGTCCATCAAAGATACACAAGATGAGAATTTATTTCAAGGA
CATTTTATCAGATAATTCTGGACGTGAAGATTCTGAAAATACATTCTCCCCTTACCAGTTCAAAACCTAGT
GGCCAGAAAAAACCATCCCTGGCATTGATGTGCTTTCTAAGAAGAAGATCTGGGCTTCATCCATGG
ACTTGCTTTGTACAGCTGACAGAGACTTCTCTCAGGAGAGACTGCCACATATCGTCGTTGTCCACCTGA
GGCAGTAACAGTGGGACTTCAACTACTCTAGAAAAAAGGAGGCAAGATACTCAGATGGAAGTATAGCC
TTGGATATCTTTGGCCCTCAGAAAATGGATCCAATATATCACACTCGAGAATTGCCACCTCCTCAGCAA
TATCAAGTGCTTTGGACCGAATCCGAGAGAGACAAAAGAACTTCAGGTTCTGAGGGAAGCCATGAATGT
AGAAGAACCAGTTCGAAGATACAAAACCTTATCATGGTGATGTCTTATGACCTCCAGTGAAGTCCATCT
ATTATTTCTCTGAATCAGATTTTCAGACAAGTGAAGAAGTGAAGCCTCAAAGAGGTTTGAATCCAGCA
GTGGTCTCCCAGGGGTAGATGAAACCTTAAGTCAAGGCCAGTCAAGAGACCCGAGCAGACAAATATGAAAC
ACCTTTGAAGGCAACTTAATTAATCAAGAGATCATGCTAAAACGGCAAGAGGAAGAAGTATGACGCTA
CAAGCCAAAATGGCCCTTAGACAGTCTCGGTTGAGCCTATATCCAGGAGACACAATCAAAGCGTCCATGC



TTGACATCACCAGGGATCCGTTAAGAGAAATTGCCCTAGAAACAGCCATGACTCAAAGAAAAGTGGGAA
TTTCTTTGGCCCTGAGTTTGTGAAAATGACAAATTGAACCATTTATATCTTTGGATTTGCCACGGTCTATT
CTTACTAAGAAAGGGAAGAATGAGGATAACCGAAGGAAAGTAAACATAATGCTTCTGAACGGGCAAAGAC
TGGAACTGACCTGTGATACCAAACTATATGTAAGATGTGTTTGATATGGTTGTGGCACATATTGGCTT
AGTAGAGCATCATTTGTTTGCTTAGCTACCCTCAAAGATAATGAATATTTCTTTGTTGATCCTGACTTA
AAATTAACCAAAGTGGCCCCAGAGGGATGGAAAGAAGAACCAAAGAAAAGACCAAAGCCACTGTTAATT
TTACTTTGTTTTTCAGAATTAATTTTTTATGGATGATGTTAGTCTAATACAACATACTGACGTGTCA
TCAGTATTACCTTCAGCTTCGAAAAGATATTTTGGAGGAAAGGATGCACTGTGATGAGACTTCCTTA
TTGCTGGCATCCTTGCTCTCCAGGCTGAGTATGGAGATTATCAACCAGAGGTTCAATGGTGTGCTTACT
TTAGAATGGAGCACTATTTGCCCGCCAGAGTGTGGAGAACTTGATTTATCCTATATCAAAGAAGAGTT
ACCCAAATTCGATAATACCTATGTGGGAGCTTCTGAAAAGAGACAGAGTTAGAATTTTTAAAGGTCTGC
CAAAGACTGACAGAATATGGAGTTCATTTTCCCGAGTGCACCCTGAGAAGAAGTCAAAACAGGAATAT
TGCTTGGAGTCTGTTCTAAAGGTGCTTGTGTTGAAGTTCACAATGGAGTGCACATTTGGTCTTCCG
CTTTCCATGGAGGAAACCAAGAAAATATCTTTTTCTAAAAGAAAATCACATTGCAAAAATACATCAGAT
GGATAAAAACATGGCTTCCAGACAGACAACAGTAAAGATATGCCAGTACCTGCTGCACCTCTGCTCTTACC
AGCATAAGTTCAGCTACAGATGAGAGCAAGACAGAGCAACCAAGATGCCCAAGATATTGAGAGAGCTTC
GTTTAGGAGCCTGAATCTCCAAGCAGAGTCTGTTAGAGGATTTAATATGGGACGAGCAATCAGCACTGGC
AGTCTGGCCAGCAGCACCTCAACAACTTGCTGTTTCGACCTTTATCAGTTCAAGCTGAGATTCTGAAGA
GGCTATCCTGCTCAGAGCTGTGCTTTACCAGCCATTGCAAAACAGTTCAAAAGAGAAGAATGACAAAGC
TTCATGGGAGGAAAAGCCTAGAGAGATGAGTAAATCATACCATGATCTCAGTCAGGCCTCTCTATCCA
CATCGGAAAAATGTCATTGTTAACATGGAACCCCCACCACAAACCGTTGCAGAGTTGGTGGGAAAACCTT
CTCACCAGATGCAAGATCTGATGCAGAATCTTTGGCAGGAGTGACAAAACCTTAATAATTCAAAGTCTGT
TGCGAGTTTAAATAGAAGTCTGAAAGGAGGAAACATGAATCAGACTCCTCATCCATTGAAGACCCCTGGG
CAAGCATATGTTCTAGGAATGACTATGCATAGTTCTGGAACTCTTCATCCCAAGTACCCTTAAAAGAAA
ATGATGTGCTACAAAAAGATGGAGCATAGTATCTTCACCAGAAAAGGAGATCACCTTAGTGAACCTGAA
AAAAGATGCAAAGTATGGCTTGGGATTTCAAATATTGGTGGGAGAAGATGGGAAGACTGGACCTAGGC
ATATTTATCAGTTCAGTTGCCCTGGAGGACCAGCTGACTTGGATGGATGCTTGAAGCCAGGAGACCGTT
TGATATCTGTGAATAGTGTGAGTCTGGAGGGAGTCAAGCCACCATGCTGCAATTGAAATTTGCAAAATGC
ACCTGAAGATGTGACACTGTTATCTCTCAGCCAAAAGAAAAGATATCCAAAGTGCCTTCTACTCCTGTG
CATCTCACCAATGAGATGAAAACTACATGAAGAAATCTTCTACATGCAAGACAGTGTATAGATTCTT
CTTCCAAGGATCACCCTGGTCAAGTGGTACCCTGAGGCACATCTCGGAGAACTCTTTGGCCATCTGG
GGCCTGCGGGAAGGAAGCCTGAGTTCTCAAGATTCCAGGACTGAGAGTGCCAGCTTGTCTCAAAGCCAG
GTCAATGGTTTCTTTGCCAGCCATTTAGGTGACAAAACCTGGCAGGAATCACAGCATGGCAGCCCTTCCC
CATCTGTAATATCCAAAGCCACCGAGAAAAGAGACTTTCACTGATAGTAACCAAAGCAAACCTAAAAGCC
AGGCATTTCTGATGTAACGTATTACTCAGACCTGGAGATTGAGACATGGATGAAGCCACTTACTCCAGC
AGTCAGGATCATCAAACACCAAAACAGGAATCTTCTCTCAGTGAATACATCCAACAAGATGAATTTTA
AAACTTTTTCTCATCACCTCCTAAGCCTGGAGATATCTTTGAGGTTGAACTGGCTAAAAATGATAACAG
CTTGGGATAAAGTGTACGGTACTGTTTGACAAGGGAGGTGTAATACGAGTGTGAGACATGGTGGCATT
TATGTGAAAGCTGTTATTCGCCAGGAGCAGCAGAGTCTGATGGTGAATTCACAAGGTGATCGCGTCC
TAGCTGTCAATGGAGTTAGTCTAGAAGGAGCCACCCATAAGCAAGCTGTGGAAACACTGAGAAATACAGG
ACAGGTGGTTCATCTGTTATTAGAAAAGGACAATCTCCAACATCTAAAGAACATGTCCCGTAACCCCA
CAGTGTACCCTTTCAGATCAGAATGCCAAGGTCAAGGCCAGAAAAAGTGAAGAAAACAACTCAGGTCA
AAGACTACAGCTTTGTCACTGAAGAAAATACATTTGAGGTAAAATTTTAAAAATAGCTCAGGTCTAGG
ATTCAGTTTTTCTCGAGAAGATAATCTTATACCGGAGCAAATTAATGCCAGCATAGTAAGGGTAAAAAG
CTCTTTCCTGGACAGCCAGCAGCAGAAAAGTGGAAAAATGATGTAGGAGATGTTATCTTGAAGTGAATG
GAGCCTCTTTGAAAGACTATCTCAGCAGGAAGTCATATCTGCTCTCAGGGGAAGTCTCCAGAAGTATT
CTTGCTTCTCTGCAGACCTCCACCTGGTGTGCTACCGGAAATGATACTGCGCTTTTGACCCCACTTCAG
TCTCCAGCACAAGTACTTCCAACAGCAGTAAAGACTCTTCTCAGCCATCATGTGTGGAGCAAAGCACCA
GCTCAGATGAAAAATGAAATGTCAGACAAAAGCAAAAAACAGTGAAGTCCCATCCAGAAGAGACAGTTA
CAGTGACAGCAGTGGGAGTGGAGAAGATGACTTAGTGACAGCTCCAGCAAACATATCAAATTCGACCTGG
AGTTTCAGCTTTGCATCAGACTCTAAGCAACATGGTATCACAGGCACAGAGTCATCATGAAGCACCCAAGA
GTCAAGAAGATACCATTTGTACCATGTTTTACTATCTCAGAAAATCCCAATAAACAGAGTTTGAGGA

CAGTAATCCTTCCCCTCTACCACCGGATATGGCTCCTGGGCAGAGTTATCAACCCCAATCAGAATCTGCT
TCCTCTAGTTCGATGGATAAGTATCATATACATCACATTTCTGAACCACTAGACAAGAAAACTGGACAC
CTTTGAAAAATGACTTGGAAAAATCACCTTGAAGACTTTGAACTGGAAGTAGAACTCCTCATTACCCTAAT
TAAATCAGAAAAAGGAAGCCTGGGTTTTACAGTAACCAAAGGCAATCAGAGAATTGGTTGTTATGTTTAT
GATGTCATACAGGATCCAGCCAAAAGTATGGAAGGCTAAAACCTGGGGACCGGCTATAAAGGTTAATG
ATACAGATGTTACTAATATGACTCATACAGATGCAGTTAATCTGCTCCGGGCTGCATCCAAAACAGTCAG
ATTAGTTATTGGACGAGTCTAGAATTACCCAGAATACCAATGTTGCCTCATTGGCTACCGGACATAACA
CTAACGTGCAACAAAGAGGAGTTGGGTTTTTCTTATGTGGAGGTCATGACAGCCTTATCAAGTGGTAT
ATATTAGTGATATTAATCCAAGGTCCGTCGCAGCCATTGAGGGTAATCTCCAGCTATTAGATGTCATCCA
TTATGTGAACGGAGTCAGCACACAAGGAATGACCTTGGAGGAAGTTAACAGAGCATTAGACATGTCACTT
CCTTCATTGGTATTGAAAGCAACAAGAAATGATCTTCCAGTGGTCCCAGCTCAAAGAGGCTGCTGTTT
CAGCTCCAAAGTCAACCAAAGGCAATGGTTCTACAGTGTGGGGTCTTGCAGCCAGCCTGCCCTCACTCC
TAATGATTCATTCTCCACGGTGTGGGAAGAAATAAATGAAATATCGTACCCCAAAGGAAAAATGTTCT
ACTTATCAGATAAAGGGATCACCAAAGTACTGCTGCCCCAAAGAATCTTATATAACAAGAAGATGACATTT
ATGATGATTCCTAAGAAGCTGAAGTTATCCAGTCTCTGCTGGATGTTGTGGATGAGGAAGCCAGAACT
TTTAAACGAAAAATATGCAGCAGGATACCTGTGGTCCAGGTACATTAAGATGAATGGGAAGTTATCA
GAAGAGAGAACAGAAGATACAGACTGCGATGGTTCACCTTTACCTGAGTATTTACTGAGGCCACAAAA
TGAATGGCTGTGAAGAATATTGTGAAGAAAAAGTAAAAAGTGAAGCTTAATTCAGAAGCCACAAGAAAA
GAAGACTGATGATGATAAATACATGGGGAAATGATGAGTTGCCAATAGAGAGAACAACCATGAAGAT
TCTGATAAAGATCATTCTTTCTGACAAACGATGAGCTCGCTGTACTCCCTGTCTGCAAAGTGTCTCCCT
CTGGTAAATACACGGGTGCCAATTAAAATCAGTCATTTCGAGTCTGCGGGGTTTGTAGATCAAGGAAT
TCCTTCTAAGGAGCTGGAGAATCTCAAGAATTAACCTTTGGATCAGTGTCTAATTGGGCAACTAAG
GAAAACAGAAGGAAGAACAGATATAAAAAATATACTTCCCTATGATGCTACAAGAGTGCCTCTTGGAGATG
AAGGTGGCTATATCAATGCCAGCTTCATTAAGATACCAGTTGGGAAAGAAGAGTTGTTTTACATTGCCTG
CCAAGGACCACTGCCTACAATGTTGGAGACTTCTGGCAGATGATTTGGGAGCAAAAAATCCACAGTGATA
GCCATGATGACTCAAGAAGTAGAAGGAGAAAAAATCAAATGCCAGCGCTATTGGCCCAACATCCTAGGCA
AAACAACAATGGTCAGCAACAGACTTCGACTGGCTCTTGTGAGAATGCAGCAGCTGAAGGGCTTTGTGGT
GAGGGCAATGACCCTTGAAGATATTAGACCAGAGAGGTGCGCCATATTTCTCATCTGAATTTCACTGCC
TGGCCAGACCATGATACACCTTCTCAACCAGATGATCTGCTTACTTTTATCTCTACATGAGACACATCC
ACAGATCAGGCCAATCATTACGCACTGCAGTGTGGCATTGGACGTTTCAGGGACCCTGATTTGCATAGA
TGTGGTCTGGGATTAATCAGTCAGGATCTTGATTTTGCATCTCTGATTTGGTGGCTGCATGAGACTA
CAAAGACACGGAATGGTTCAGACAGAGGATCAATATATTTTCTGCTATCAAGTCATCCTTTATGCTCTGA
CACGCTTCAAGCAGAAGAAGAGCAAAAAACAGCAGCCTCAGCTTCTGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216402 representing NM_080685
 Red=Cloning site Green=Tags(s)

MHVSLAEALEVRGGPLQEEEEIWAFLNQAESLQELFRKVSADPAALGFIIISPWLLLLPSGSVSFTDEN
 ISNQDLRAFTAPEVLQNSLTSLSVVEKIHIYSLGMTLYWGADYEVPSQPIKLDHNLNILLGMCEDVI
 YARVSVRTVLDACSAHIRNSNCAPSF SYVKHLVKLVGNLSGTDQLSCNSEQKPKDRSQAIRDRLRGKGLP
 TGRSSTSDVLDIQKPPLSHQFTLNKGLSKSMGFLSIKDTQDENYFKDILSDNSGREDSSENTFSYQFKTS
 GPEKKPIPGIDVLSKKKIWASSMDLLCTADRFSSGETATYRRCHEAVTVRTSTTPRCKEARYSDGSIA
 LDIFGPQKMDPIYHTRELPTSSAISALDRIRERQKQLVLRAMNVEEPPVRRYKYHGDVDFSTSSSEPS
 IISSESDFRQVRRSEASKRFESSGLPGVDETL SQGQSQRPSRQYETPFEGNLINQEIMLKRQEEELMQL
 QAKMALRQSRLSLYPGDTIKASMLDITRDPLREIALETAMTQRKLRNFFGPEFVKMTIEPFIISLDLPRSI
 LTKKGNEDNRRKVNIMLLNGQRELETCDTKTICKDVFDMVVAHIGLVEHHLFALATLKDNEYFFVDPDL
 KLTKVAPEGWKEPKKTKATVNFLLFRIFKFMDDVSLIQHTLTCHQYYLQLRKDILEERMHCDETSLS
 LLASLALQAEYGDYQPEVHGVSYFRMEHYLPARVMEKLDLSYIKEELPKLHNTYVGAASEKETEFLKVC
 QRLTEYGVHFRVHPEKKSQTGILLGVCSKGVLVFEVHNGVRTLVLRFPWRETKISFSKKTITLQNTSD
 GIKHGFQTDNSKICQYLLHLCSYQHKFQLQMRARQSNQDAQDIERASFRSLNLQAESVRFNMGRAISTG
 SLASSTLNKLAVRPLSVQAEILKRLSCSEL SLYQPLQNSKEKNDKASWEEKPREMSKSYHDL SQASLYP
 HRKNVIVNMEPPPQTVAELVGKPSHQMSRSDAESLAGVTKLNNKSVASLNRSPERRKHESDSSSIEDPG
 QAYVLGMTMHSSGNSSSQVPLKENDVLHWRWSIVSSPEREITLVNLKDKAKYGLGFQIIGGKMGRLDLG
 IFISSVAPGGPADLDGCLKPGDRLISVNSVSLEGVSHHAAIEILQNAPEVTVLVISQPKKISKVPSTPV
 HLTNEMKNYMKSSYMQDSAIDSSSKDHHWSRGTLRHISENSFGPSSGLREGSLSSQDSRTESASLSQSQ
 VNGFFASHLGDQTWQESQHGSPSPSVISKATEKETFTDSNQSKTKKPGISDVTDYSDRGSDMDEATYSS
 SQDHQTPKQESSVNTSNKMNFKTFSSSPPKPGDIFEVELAKNDNSLGISVTVLFDKGGVNTSVRHGGI
 YVKAVIPQGAESDGRVHKGDRVLAVNGVSELEGATHKQAVETLRNTGQVVHLLLEKQSPSTKEHVPTP
 QCTLSDQNAQGQGPKEVKKTTQVKDYFVTEENTFEVKL FKNSSGLGFSFSREDNLIPEQINASIVRVK
 LFPQPAAESGKIDVGDVILKVN GASLKGLSQQEVISALRGTAPEVFLLLCRPPPGLVPEIDTALLTPLQ
 SPAQVLPNSSKDSQPSCVEQSTSSDENEMSDKSKKQCKSPSRSDSYSDSSGSGEDDLVTA PANISNSTW
 SSALHQTLSNMVSAQSHHEAPKSQEDTICTMFYYPQKIPNKPEFEDSNPSPLPPDMAPGQSYQPQSESA
 SSSSMDKYIHIIHISEPTRQENWTP LKNLENHLEDFELEVELLITLIKSEKGLGFTVTKGNQRIGCYVH
 DVIQDPAKSDGRLKPGDRLIKVNDTDTNMHTDAVNLLRAASKTVRLVIGRVLELPRIPMLPHLLPDIT
 LTCNKEELGFSLCGGHDSL YQVVIYSDINPRSVAAIEGNLQLLDVHYVNGVSTQGMTLEEVNRLDMSL
 PSLVVKATRNDLPVVPSSKRSVAPKSTKNGSYSVGSCSQPALTPNDSFSTVAGEEINEISYPKGKCS
 TYQIKGSPNLTLPKESYIQEDDIYDDSQEAQVLSLDDVVDEEAQNLNENNAAGYSCGPGTLKMNGLS
 EERTEDTDCDGSPLPEYFTEATKMGCEEYCEEKVKSESLIQKPQEKTTDDDEITWGNDELPIERTNHED
 SDKDHSFLTNDELAVLPVVKVLP SGKYTGANLKS VIRVLRGLLDQGIPSKEL ENLQELKPLDQCLIGQTK
 ENRRKNRYKNILPYDATRVPLGDEGGYINASF IIPVKGEEFVYIACQGPLPTTVGDFWQMIWEQKSTVI
 AMMTQEVEGEKIKCQRYWPNILGKTTMVSNRLRALVRMQQLKGFVVRAMTLEDIQTREVRHISHLNFTA
 WPDHDTSPQDDLLTFISYMRHIHRSGPIITHCSAGIGRSGTLICIDVVLGLISQDLDFDISDLVRCMRL
 QRHGMVQTEDQYIFCYQVILYVLRQLAEQEEQKQPQLLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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: [NM_080685.2](#), [NP_542416.1](#)

RefSeq Size: 8588 bp

RefSeq ORF: 7473 bp

Locus ID: 5783

UniProt ID: [Q12923](#)

Cytogenetics: 4q21.3

Protein Families: Druggable Genome, Phosphatase

MW: 277.5 kDa

Gene Summary:

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP is a large intracellular protein. It has a catalytic PTP domain at its C-terminus and two major structural domains: a region with five PDZ domains and a FERM domain that binds to plasma membrane and cytoskeletal elements. This PTP was found to interact with, and dephosphorylate, Fas receptor and I κ B α through the PDZ domains. This suggests it has a role in Fas mediated programmed cell death. This PTP was also shown to interact with GTPase-activating protein, and thus may function as a regulator of Rho signaling pathways. Four alternatively spliced transcript variants, which encode distinct proteins, have been reported. [provided by RefSeq, Oct 2008]