

Product datasheet for **RG214221**

PTPN13 (NM_080683) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTPN13 (NM_080683) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTPN13
Synonyms:	FAP-1; hPTP1E; PNP1; PTP-BAS; PTP-BL; PTP1E; PTPL1; PTPLE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214221 representing NM_080683 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACGTGCTACTAGCTGAGGCCCTGGAGGTTTCGGGGTGGACCACTTCAGGAGGAAGAAATATGGGCTG
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AAGAAGAGCAAAAACAGCAGCCTCAGCTTCTGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG214221 representing NM_080683
 Red=Cloning site Green=Tags(s)

MHVSLAEALEVRGGPLQEEEEIWAFLNQAESLQELFRKVSADPAALGFIIISPWLLLLPSGSVSFTDEN
 ISNQDLRAFTAPEVLQNSLTSLSVVEKIHIIYSLGMTLYWGADYEVPSQPIKLDGHLNSILLGMCEDVI
 YARVSVRTVLDACSAHIRNSNCAPSF SYVKHLVKLVGNLSGTDQLSCNSEQKPKDRSQAIRDRLRGKGLP
 TGRSSSTDVLDIQKPPLSHQTFLNKGLSKSMGFLSIKDTQDENYFKDILSDNSGRESENTFSFYQFKTS
 GPEKKPIPGIDVLSKKKIWASSMDLLCTADRFSSGETATYRRCHPEAVTVRTSTTPRKKEARYSDGSIA
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 QAKMALRQSRLSLYPGDTIKASMLDITRDPLREIALETAMTQRKLRNFFGPEFVKMTIEPFIISLDLPRSI
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 GIKHGFQTDNSKICQYLLHLCSYQHKFQLQMRARQSNQDAQDIERASFRLNLQAESVRFNMGRAISTG
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 QAYVLTGMTMHSSGNSSSQVPLKENDVLHWRVSISSPEREITLVNLKDAKYGLGFQIIGGKMGRLDLG
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 IPQGAESDGRIHKGDRVLAVNGVSLGATHKQAVETLRNTGQVVHLLLEKQSPSTKEHVPTPQCTLS
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 EELGFSLCGGHDSL YQVYVYISDINPRVAAIEGNLQLLDVHYVNGVSTQGMTLEEVNRLDMSLPSLVL
 KATRNDLPVVPSSKRSVAPKSTKNGSYSVGSCSQPALTPNDSFSTVAGEEINEISYPKGCSTYQIK
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 DTDCDGSPLPEYFTEATKMNGCEEYCEEVKSESLIQKPQEKKTDDDEITWGNDELPIERTNHEDSKDKH
 SFLTNDELAVLPVVKVLP SGKYTGANLKS VIRVLRGLLDQGI PSKELENLQELKPLDQCLIGQTKENRRK
 NRYKNILPYDATRVPLGDEGGYINASF I KIPVGKEEFVYIACQGPLPTTVGDFWQMIWEQKSTVIAMMTQ
 EVEGEKIKCQRYWPNILGKTTMVSNRLRLALVRMQQLKGFVVRAMTLEDIQTREVRHISHLNFTAWPDHD
 TPSQPDLLTFISYMRHIHRSGPIITHCSAGIGRSGTLICIDVVLGLISQDLDFDISDLVRCMRLQRHGM
 VQTEDQYIFCYQVILYVLTQLAEQEEQKQPQLLK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-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_080683.3](#)

RefSeq Size: 8573 bp

RefSeq ORF: 7458 bp

Locus ID: 5783

UniProt ID: [Q12923](#)

Cytogenetics: 4q21.3

Domains: Y_phosphatase, B41, PDZ, PTPc_motif

Protein Families: Druggable Genome, Phosphatase

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]