

Product datasheet for RC218964

PTP gamma (PTPRG) (NM_002841) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTP gamma (PTPRG) (NM_002841) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTP gamma
Synonyms:	HPTPG; PTPG; R-PTP-GAMMA; RPTPG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218964 representing NM_002841 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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TCCATGGCAACTGGGATGGGCCCCCTCCAGTGGCAGCCAGGCCACAGTGGCCTCGGTGGTCACCAGCA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218964 representing NM_002841
 Red=Cloning site Green=Tags(s)

MRRLLEPCWWILFLKITSSVLHYVVCFPALTEGYVVALHENRHGSAVQIRRRKASGDPYWAYSGAYGPEH
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 GRFKAEKVEFWGHSHNGSAGSEHSINGRRFPVEMQIFFYNPDDFDSFQTAI SENRIIGAMAIFQVSPRD
 NSALDPIIHGLKGVVHHEKETFLDPFVLRDLLPASLGSYYRYTGLSTTPPCSEIVEWIVFRRPVPI SYHQ
 LEAFYSIFTTEQQDHVKSVEYL RNNFRPQQR LHDRVVS KSAVRDSWNHDMTDFLENPLGTEASKVCS SPP
 IHMKVQPLNQ TALQVSWSQPETIYHPPI MNYMISYSWTKNEDEKEKTF TKDSDKDLKATISHVSPDSL YL
 FRVQAVCRNDMRSDFSQ TMLFQANTTRIFQGRIVKTVGPTASPASSADMAPISSGSSTWTSSGIPFSV
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 MSRGDRFSEDSRFITV NPAEKNTSGMISRPAPGRMEWIIPLIVVSALTFVCLILLIAVLVYWRGCKNIKS
 KGFPRRFREVPSSGERGEKSRKCFQTAHFYVEDSSSPRVVPNESIPIIPDDMEAI PVKQFVKHIGEL
 YSNNQHGFSEDFE EVQRCTADMNITAEHSNHPEKHKHNYINILAYDHSRKLRLPLPGKDSKHSYINAN
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 LGKETEVSNNQLHSYVNSILIPGVGGKTRLEKQFKLVTQCNAKYVECFSAQKECNKEKNRNSVVP SERA
 RVGLAPLPGMKGTDYINASYIMGYRSNEFIITQHPLPHTTKDFWRMIWDHNAQIIVMLPDNQSLAEDEF
 VYWPSREESMNCEAFVTLISKDRLCL SNEEQI I IHDFILEATQDDYVLEVRHFQCPKWPNDAPISSTF
 ELINVIKEEALTRDGPTIVHDEYGA VSAGMLCAL T T L S Q Q L E N E N A V D V F Q V A K M I N L M R P G V F T D I E Q Y
 QFIYKARLSLVSTKENGNGPMTVDKNGAVLIAEDSDPAESMESLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_002841

ORF Size: 4335 bp

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_002841.2](#), [NP_002832.2](#)

RefSeq Size: 5787 bp

RefSeq ORF: 4338 bp

Locus ID: 5793

UniProt ID: [P23470](#)

Cytogenetics: 3p14.2

Domains: Y_phosphatase, carb_anhydrase, PTPc_motif, FN3

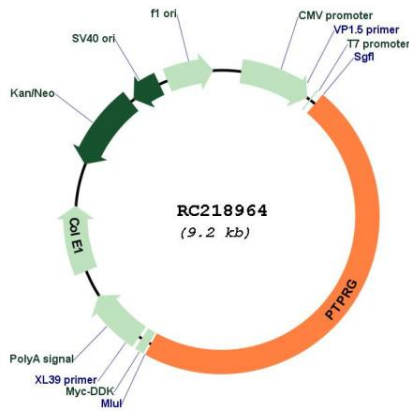
Protein Families: Druggable Genome, Phosphatase

MW: 161.8 kDa

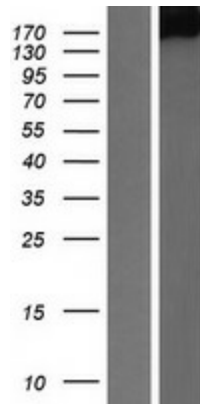
Gene Summary:

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP possesses an extracellular region, a single transmembrane region, and two tandem intracytoplasmic catalytic domains, and thus represents a receptor-type PTP. The extracellular region of this PTP contains a carbonic anhydrase-like (CAH) domain, which is also found in the extracellular region of PTPRBETA/ZETA. This gene is located in a chromosomal region that is frequently deleted in renal cell carcinoma and lung carcinoma, thus is thought to be a candidate tumor suppressor gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC218964



Western blot validation of overexpression lysate (Cat# [LY419069]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218964 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).