

## Product datasheet for **SC118366**

### PTP gamma (PTPRG) (NM\_002841) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTP gamma (PTPRG) (NM_002841) Human Untagged Clone
Tag:	Tag Free
Symbol:	PTP gamma
Synonyms:	HPTPG; PTPG; R-PTP-GAMMA; RPTPG
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002841, the custom clone sequence may differ by one or more nucleotides

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ATGCGGAGGTTACTGGAACCGTGTGGTGGATTTTGTTCCTGAAAATCACCAGTCCGTGCTCCATTATG
TCGTGTGCTTCCCGCGTTGACAGAAGGCTACGTTGGGGCCCTGCACGAGAATAGACACGGCAGCGCAGT
GCAGATCCGCAGGCGCAAGGCTTCAGGGCACCCGTAAGGCTACTGGGCTACTCTGGTGCCATGGTCTGAGCAC
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TCAAACCGCAATTTCTGAGAACAGAATAATCGGAGCCATGGCCATATTTTTCAAGTCAAGTCCGAGGGAC
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CCTCCCGACGGCCGCTCAGCCAGCAAGCAGGCGGCTAGGCCAGTCTAGCCACCACAGAGGCTTGGCT  
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GAGCAGTTTCAGCAGGAATGTTATGTGCCCTTACCACCCTGTCCCAGCAACTGGAGAATGAAAATGCTGT  
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CAGTTCATCTATAAGCAATGCTTAGCTGGTCAGCACTAAAGAAAATGGAAATGGTCCCATGACAGTAG  
ACAAAATGGTGTCTTCTTATTGCAGATGAATCAGACCCTGCTGAGAGCATGGAGTCCCTAGTGTGA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002841 unedited  
 CTCTCCC GCCCGTTGNCGCATAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCA  
 GAGCTCGTTTAGTGAACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGCAA  
 TTCGGCACCAGGGCCCGTGGAGCGGGCAGCCGGGAAGCGCCCCGGCTTAGCGGAGGCT  
 CGCACGGAGGCAAGAACTTATCAACAAGTTTACCTCCCTGCTTCTCTTTTCGATGTG  
 CGTTTTTCGGACATGCGGAGGTTACTGGAACCGTGTGGTGGATTTTGTTCCTGAAAATCA  
 CCAGTCCCGTCTCCATTATGTCGTGTGCTTCCCCGCGTTGACAGAAGGCTACGTTGGGG  
 CCCTGCACGAGAATAGACACGGCAGCGCAGTGCAGATCCGCAGGCGCAAGGCTTCAGGCG  
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 CTGGTCTACCTGGCAGATTCAAAGCTGAGAAGGTGGAATTTCACTGGGGCCACAGCAATG  
 GCTCAGCGGGCTCTGAACACAGCATCAATGGCAGGAGTTTCTGTTGAGATGCAGATTT  
 TCTTTTACAATCCAGATGACTTTGACAGCNTTTCAACCGCAATTTCTGAGAACAGATAA  
 TCGGAGCCATGGCATATTTTTTCAGTCAGTCCGAGGGACATTCTGCACTGGATCCTATAT  
 CCACGGGTTGAAGGGTGTCTACTCAC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002841 unedited  
 CTTGGCCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTAAAGCTGTAATAC  
 AGAGTTATCCTTTATTTTACACATTTTTAAAAAACTGTGAATATAACTTTGTAACATAA  
 AAGGGATGTTACATGAAGCAGTTCTTAAGCCTTCTAACTTCTTAAGGGATCTCTTAACC  
 AGCATAAATGAACTGTTTCAAGGCCATGACATTAACAGACCTTTTTAGGTCCCAGTAGC  
 CTGCTAGTCTGTAAAAGAAAACAATGCTATCCACTCCATTAATAACAGAAAGGCATACAG  
 TATTGAACAGTGCCTAAAATAAAAAGGAGAGGAGGACTGAAGAAAAGTACAGCATTGCCT  
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 CAAAGACCTTCACTGTATTGAACTAAAAAAAAGTAGCATGTATGTCGTCATGGAATGTCA  
 CATCAGGGTTTGCTGTTGTATAAGATTATAGGCAGTAACACTGATCATATAGTGCAAAT  
 AGGTAATAATTGCGTTTTCACTGTGTGAAATGAACAGAGGTGCAAATGCTCAGTAGGATACC  
 ATTAAGACATAAAATGGCAAAAAATAAATATCAAACTTTTATCAGTGTAATAAAGTCCC  
 TGCGCTATTGCATAACCTAGAGCCCGGCACAAAGGCCCAACAGGTCCTAGTCTCACA  
 CGTTTACCCCTTAAGTCCCCTTTCCCGATTCCGCCCCCTAGGCACCCACTGCTCTCAGC  
 CCGGGCCCGCTTCCCTCGCTATCACTACCCTCCCACCCTTGTCTCCCGCCCGGGACCCC  
 TCCCCTTTTATTTCCGCGCTCCCCCCCCTACTTCCCCTCCTCCATCCCGGCCCTCCTCC  
 CCCCTCCCCTCCTCTCCCCTCCCCCGCTCCCGCCCTGAATTTCCCCTCCGCGCTTTCC  
 CCCTCCCCTATCGGACCCCCGCCCACTCG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002841

**Insert Size:**

3900 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](mailto: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](#)

**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

**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]