

## Recombinant Human PTPRG, GST-tagged

**Cat. No.** PTPRG-459H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human PTPRG encoding the Catalytic domain (a.a. 801-1147) was expressed in an <i>E.coli</i> expression system with N-terminal GST tag. MW=65.6 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Protein Length</b>   | 801-1147 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | Receptor-type tyrosine-protein phosphatase gamma is an enzyme that in humans is encoded by the PTPRG gene. 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. |
| <b>Formulated In</b>    | 25 mM Tris-HCl, pH 8.0, 75 mM NaCl, 0.05% Tween-20, 50% glycerol, 2 mM EDTA, 1 mM DTT, 10 mM glutathione.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Application</b>      | Useful for the study of enzyme kinetics, regulation, and to dephosphorylate target                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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substrates.

**Specific Activity**

10 U/ug. One unit will hydrolyze 1 nmol p-nitrophenyl phosphate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 2 mM EDTA, 3 mM DTT, 100 mM NaCl, 50 mM pNPP.

**Purity**

> 95% by SDS-PAGE.

**Stability**

>6 months at -80°C.

## GENE INFORMATION

**Gene Name**

[PTPRG protein tyrosine phosphatase, receptor type, G \[ Homo sapiens \]](#)

**Synonyms**

protein tyrosine phosphatase, receptor type, G; PTPG; HPTPG; RPTPG; R-PTP-GAMMA; PTPRG; H\_RG317H01.1; protein tyrosine phosphatase gamma; receptor tyrosine phosphatase gamma; receptor-type protein phosphatase gamma; receptor type protein tyrosine phosphatase gamma; protein tyrosine phosphatase, receptor type, gamma polypeptide; EC 3.1.3.48; H\_RG317H01.1; R-PTP-gamma; Protein-tyrosine phosphatase gamma

**Gene ID**

[5793](#)

**mRNA Refseq**

[NM\\_002841](#)

**Protein Refseq**

[NP\\_002832](#)

**MIM**

[176886](#)

**UniProt ID**

[P23470](#)

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|----------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Chromosome Location</b> | 3p21-p14                                                                                                    |
| <b>Function</b>            | hydrolase activity; identical protein binding; transmembrane receptor protein tyrosine phosphatase activity |

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