Recombinant Human PTPRG, GST-tagged

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

SPECIFICATION

Product Overview	Recombinant Human PTPRG encoding the Catalytic domain (a.a. 801-1147) was expressed in an*E.coli*expression system with N-terminal GST tag. MW=65.6 kDa.
Species	Human
Source	E.coli
ProteinLength	801-1147 a.a.
Description	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.
Formulated In	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.
Application	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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Chromosome Location	3p21-p14
Function	hydrolase activity; identical protein binding; transmembrane receptor protein tyrosine phosphatase activity

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