

Recombinant Mouse Ptgr1 Protein, Myc/DDK-tagged

Cat. No. Ptgr1-5223M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length prostaglandin reductase 1 (Ptgr1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	NAD(P)H-dependent oxidoreductase involved in metabolic inactivation of pro- and anti-inflammatory eicosanoids: prostaglandins (PG), leukotrienes (LT) and lipoxins (LX). Catalyzes with high efficiency the reduction of the 13,14 double bond of 15-oxoPGs, including 15-oxo-PGE1, 15-oxo-PGE2, 15-oxo-PGF1-alpha and 15-oxo-PGF2-alpha. Catalyzes with lower efficiency the oxidation of the hydroxyl group at C12 of LTB4 and its derivatives, converting them into biologically less active 12-oxo-LTB4 metabolites. Reduces 15-oxo-LXA4 to 13,14 dihydro-15-oxo-LXA4, enhancing neutrophil recruitment at the inflammatory site. Plays a role in metabolic detoxification of alkenals and ketones. Reduces alpha,beta-unsaturated alkenals and ketones, particularly those with medium-chain length, showing highest affinity toward (2E)-decenal and (3E)-3-nonen-2-one. May inactivate 4-hydroxy-2-nonenal, a cytotoxic lipid constituent of oxidized low-density lipoprotein particles.
Molecular Mass	35.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and

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handling conditions. Avoid repeated freeze-thaw cycles.

Storage Store at -80 centigrade after receiving vials.

Concentration >50 µg/mL as determined by microplate BCA method

Storage Buffer 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name [Ptgr1 prostaglandin reductase 1 \[Mus musculus \(house mouse\) \]](#)

Official Symbol [Ptgr1](#)

Synonyms PTGR1; prostaglandin reductase 1; PRG-1; 15-oxoprostaglandin 13-reductase; leukotriene B4 12-hydroxydehydrogenase; NADP-dependent leukotriene B4 12-hydroxydehydrogenase; Ltb4dh; 2510002C21Rik

Gene ID [67103](#)

mRNA Refseq [NM_025968](#)

Protein Refseq [NP_080244](#)

UniProt ID [Q91YR9](#)

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