

Recombinant Human Prostaglandin E Synthase

Cat. No. PTGES-583H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PTGES isolated from a baculovirus overexpression system in <i>Sf21 cells</i> . MW = 21 kDa.
Species	Human
Source	Sf21 Cells
Description	Prostaglandin E synthases (PGESs) are enzymes that convert cyclooxygenase (COX)-derived PGH₂ to PGE₂. There are three different PGES enzymes with distinct enzymatic properties, modes of expression, cellular and subcellular localizations, and intracellular functions, two of which are membrane-bound enzymes and have been designated as mPGES-1 and mPGES-2. mPGES-1 is a perinuclear protein belonging to the membrane-associated proteins involved in eicosanoid and glutathione metabolism (MAPEG) superfamily.² It requires glutathione as an essential cofactor for activity. mPGES-1 is up-regulated in response to various proinflammatory stimuli with a concomitant increased expression of COX-2 and is down-regulated by glucocorticoids.³ mPGES-1 gene knockout studies in mice have indicated a role for mPGES-1-generated PGE₂ in female reproduction, inflammation, pain, fever, anorexia, atherosclerosis, stroke, and tumorigenesis. Therefore, mPGES-1 is a potential drug target for various diseases.
Purity	16,000 x g supernatant.
Formulation	A solution in 50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride

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and 20% glycerol.

Storage

≥6 months at -80°C; avoid freeze/thaw cycles by aliquoting the protein and storing at -80°C.

GENE INFORMATION

Gene Name

PTGES prostaglandin E synthase [Homo sapiens]

Synonyms

PTGES; prostaglandin E synthase; PGES; MPGES; PIG12; PP102; PP1294; MGST-IV; MGST1L1; TP53I12; mPGES-1; MGC10317; MGST1-L1; MGST1-like 1; p53-induced gene 12 protein; p53-induced apoptosis protein 12; glutathione S-transferase 1-like 1; microsomal prostaglandin E synthase-1; tumor protein p53 inducible protein 12; microsomal glutathione S-transferase 1-like 1; EC 5.3.99.3

Gene ID

9536

mRNA Refseq

NM_004878

Protein Refseq

NP_004869

MIM

605172

UniProt ID

O14684

Chromosome Location

9q34.3

Pathway

Arachidonic acid metabolism; Metabolic pathways

Function

isomerase activity; prostaglandin-E synthase activity

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