HPGDS/PGD2 (HPGDS) Recombinant Protein

PRODUCT OVERVIEW

Product Name	HPGDS/PGD2, Recombinant Protein
Full Product Name	HPGDS/PGD2 Protein, Human, Recombinant (His Tag)
Product Gene Name	HPGDS recombinant protein
Product Synonym Names	Human PGD2/PGDS/HPGDS Protein (His Tag); GSTS Protein, Human; GSTS1 Protein, Human; GSTS1-1 Protein, Human; PGD2 Protein, Human; PGDS Protein, Human; hematopoietic prostaglandin D synthase
Sequence	Met1-Leu19 9
Host	E Coli
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	23,344 Da
Chromosome Location	Chromosome: 4; NC_000004.11 (95219707..95264027, complement). Location: 4q22.3
OMIM	602598
3D Structure	ModBase 3D Structure for O60760
Species	Human
Predicted N Terminal	Met
Tag	C-His
Protein Construction	A DNA sequence encoding the human PGDS (O60760)(Met1-Leu199) was expressed with a polyhistide tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Related Product Information for HPGDS recombinant protein	MBS8121839 is a recombinant protein targeting HPGDS. Also known as HPGDS/PGD2 Protein, Human, Recombinant (His Tag). Host: E Coli.
Other Notes	Small volumes of HPGDS recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of HPGDS recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HPGDS. It may not necessarily be applicable to this product.

NCBI GI #	49456319
NCBI GeneID	27306
NCBI Accession #	CAG46480.1
UniProt Primary Accession #	O60760
UniProt Secondary Accession #	Q6FHT9
UniProt Related Accession #	O60760
NCBI Official Full Name	PGDS
NCBI Official Synonym Full Names	hematopoietic prostaglandin D synthase
NCBI Official Symbol	HPGDS
NCBI Official Synonym Symbols	GSTS; PGD2; PGDS; GSTS1-1
UniProt Protein Name	Hematopoietic prostaglandin D synthase
UniProt Synonym Protein Names	GST class-sigma; Glutathione S-transferase (EC:2.5.1.18); Glutathione-dependent PGD synthase; Glutathione-requiring prostaglandin D synthase; Prostaglandin-H2 D-isomerase
Protein Family	Hematopoietic prostaglandin D synthase
UniProt Gene Name	HPGDS
UniProt Synonym Gene Names	GSTS; PGDS; PTGDS2; H-PGDS
UniProt Entry Name	HPGDS_HUMAN
NCBI Protein Information	hematopoietic prostaglandin D synthase; GST class-sigma; prostaglandin-H2 D-isomerase; glutathione S-transferase sigma; glutathione-dependent PGD synthase; glutathione-dependent PGD synthetase; hematopoietic prostaglandin D2 synthase; glutathione-requirin
NCBI Summary for HPGDS	Prostaglandin-D synthase is a sigma class glutathione-S-transferase family member. The enzyme catalyzes the conversion of PGH2 to PGD2 and plays a role in the production of prostanoids in the immune system and mast cells. The presence of this enzyme can be used to identify the differentiation stage of human megakaryocytes. [provided by RefSeq, Jul 2008]

UniProt Comments for HPGDS	Ptgds2: Bifunctional enzyme which catalyzes both the conversion of PGH2 to PGD2, a prostaglandin involved in smooth muscle contraction/relaxation and a potent inhibitor of platelet aggregation, and the conjugation of glutathione with a wide range of aryl halides and organic isothiocyanates. Also exhibits low glutathione-peroxidase activity towards cumene hydroperoxide. Belongs to the GST superfamily. Sigma family. Protein type: EC 2.5.1.18; Lipid Metabolism - arachidonic acid; EC 5.3.99.2; Isomerase Chromosomal Location of Human Ortholog: 4q22.3 Cellular Component: cytoplasm; cytosol Molecular Function: prostaglandin-D synthase activity; protein homodimerization activity; glutathione transferase activity; magnesium ion binding; calcium ion binding Biological Process: xenobiotic metabolic process; cyclooxygenase pathway; arachidonic acid metabolic process; locomotory behavior; signal transduction; prostaglandin metabolic process
Research Articles on HPGDS	**1.** the Val187Ile HPGDS isoenzyme common among African Americans is not associated with colorectal cancer risk
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