Recombinant PGES2 protein (His tag)

Catalog Number	541275
Synonyms	Membrane-associated prostaglandin E synthase-2; mPGE synthase-2; Microsomal prostaglandin E synthase 2; mPGES-2; Prostaglandin-H(2) E-isomerase
Species	Human
Expression System	E. coli
Accession	Q9H7Z7
Molecular Weight	Predictes a molecular mass of 36.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	75-377
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 75-377 aa (Q9H7Z7) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	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 unless customers require otherwise.

Description

Description	Recombinant Human Prostaglandin E Synthase 2 (PTGES2) Fragment (residues 75-377), a high-purity protein designed to encompass the critical Glutaredoxin and GST C-terminal domains. This fragment serves as an essential tool for investigating the isomerase activity and functional mechanisms of PTGES2 in prostaglandin E2 synthesis and related pathways. Prostaglandin E Synthase 2 (PTGES2), encoded by the PTGES2 gene in humans, functions as an isomerase that catalyzes the conversion of prostaglandin H2 (PGH2) to prostaglandin E2 (PGE2) in vitro. While its precise biological role and glutathione (GSH)-dependency remain under investigation, PTGES2 may also participate in the degradation of PGH2 to 12(S)-hydroxy-5(Z),8(E),10(E)-heptadecatrienoic acid (HHT) and malondialdehyde (MDA), particularly when complexed with GSH and heme. The full-length protein is localized to the Golgi apparatus membrane as a single-pass membrane protein and is cleaved into a soluble truncated form enriched in the perinuclear cytoplasmic region. This fragment (residues 75-377) includes key functional domains, enabling focused studies on PTGES2's enzymatic and regulatory properties in cellular signaling and inflammation.