

## Recombinant Human PGD2 Synthase/PTGDS Protein (His Tag)

**Catalog No.** PKSH032006

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

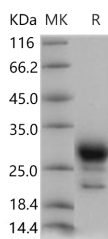
### Description

<b>Synonyms</b>	Prostaglandin D Synthase;Prostaglandin-H2 D-Isomerase;Beta-Trace Protein;Cerebrin-28;Glutathione-Independent PGD Synthase;Lipocalin-Type Prostaglandin-D Synthase;Prostaglandin-D2 Synthase;PGD2 Synthase;PGDS;PGDS2;PTGDS;PDS
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Gln190
<b>Accession</b>	P41222
<b>Calculated Molecular Weight</b>	20.1 kDa
<b>Observed molecular weight</b>	28 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 80 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 80 % as determined by reducing SDS-PAGE.

### For Research Use Only

## Background

PTGDS; also known as L-PGDS; belongs to the calycin superfamily; lipocalin family. Lipocalins share limited regions of sequence homology and a common tertiary structure architecture. They transport small hydrophobic molecules such as steroids; bilins; retinoids; and lipids. PTGDS is a glutathione-independent prostaglandin D synthase that catalyzes the conversion of PGH<sub>2</sub> to PGD<sub>2</sub>. It is involved in smooth muscle contraction/relaxation and a variety of central nervous system functions. PTGDS may have an anti-apoptotic role in oligodendrocytes. It binds small non-substrate lipophilic molecules; including biliverdin; bilirubin; retinal; retinoic acid and thyroid hormone; and may act as a scavenger for harmful hydrophobic molecules and as a secretory retinoid and thyroid hormone transporter. It is likely to play important roles in both maturation and maintenance of the central nervous system and male reproductive system.

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