

Rat PTGDS / L-PGDS Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 81340-R08H

General Information

Gene Name Synonym:

PTGDS

Protein Construction:

A DNA sequence encoding the rat PTGDS (NP_037147.1) (Met1-Glu189) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 25

Molecular Mass:

The recombinant rat PTGDS consists of 176 amino acids and predicts a molecular mass of 20.3 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

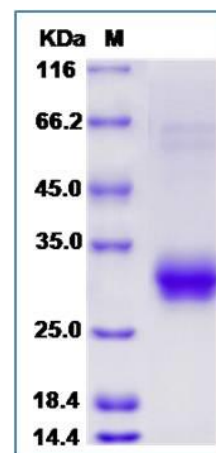
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 PGH2 to PGD2. 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.

References

1. Aebersold R, *et al.* (1993) Identification of a brain-specific human cerebrospinal fluid glycoprotein, beta-trace protein. *Theor Electrophor.* 3:229-234.
2. Oliver K, *et al.* (2004) DNA sequence and analysis of human chromosome 9. *Nature.* 429:369-374.
3. Bonaldo MF, *et al.* (1997) Normalization and subtraction: two approaches to facilitate gene discovery. *Genome Res.* 6(9):791-806.

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