

PTGDS Blocking Peptide (C-term)

Synthetic peptide

Catalog # BP21088a

Specification**PTGDS Blocking Peptide (C-term) - Product Information**Primary Accession [P41222](#)**PTGDS Blocking Peptide (C-term) - Additional Information****Gene ID** 5730**Other Names**

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

Target/Specificity

The synthetic peptide sequence is selected from aa 149-162 of HUMAN PTGDS

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PTGDS Blocking Peptide (C-term) - Protein Information**Name** PTGDS**Synonyms** PDS**Function****PTGDS Blocking Peptide (C-term) - Background**

Catalyzes the conversion of PGH2 to PGD2, a prostaglandin involved in smooth muscle contraction/relaxation and a potent inhibitor of platelet aggregation. Involved in a variety of CNS functions, such as sedation, NREM sleep and PGE2-induced allodynia, and may have an anti-apoptotic role in oligodendrocytes. 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. Possibly involved in development and maintenance of the blood-brain, blood-retina, blood-aqueous humor and blood-testis barrier. It is likely to play important roles in both maturation and maintenance of the central nervous system and male reproductive system.

PTGDS Blocking Peptide (C-term) - References

Nagata A., et al. Proc. Natl. Acad. Sci. U.S.A. 88:4020-4024(1991).
Nagata A., et al. Submitted (AUG-2006) to the EMBL/GenBank/DDBJ databases.
White D.M., et al. J. Biol. Chem. 267:23202-23208(1992).
Lu J.C., et al. (In) Robaire B., Chemes H., Morales C.R. (eds.);
Ota T., et al. Nat. Genet. 36:40-45(2004).

Catalyzes the conversion of PGH2 to PGD2, a prostaglandin involved in smooth muscle contraction/relaxation and a potent inhibitor of platelet aggregation (PubMed: [20667974](http://www.uniprot.org/citations/20667974)). Involved in a variety of CNS functions, such as sedation, NREM sleep and PGE2-induced allodynia, and may have an anti-apoptotic role in oligodendrocytes. 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. Possibly involved in development and maintenance of the blood-brain, blood-retina, blood-aqueous humor and blood-testis barrier. It is likely to play important roles in both maturation and maintenance of the central nervous system and male reproductive system (PubMed: [20667974](http://www.uniprot.org/citations/20667974), PubMed: [9475419](http://www.uniprot.org/citations/9475419)). Involved in PLA2G3-dependent maturation of mast cells. PLA2G3 is secreted by immature mast cells and acts on nearby fibroblasts upstream to PTGDS to synthesize PGD2, which in turn promotes mast cell maturation and degranulation via PTGDR (By similarity).

Cellular Location

Rough endoplasmic reticulum. Nucleus membrane. Golgi apparatus. Cytoplasm, perinuclear region. Secreted
Note=Detected on rough endoplasmic reticulum of arachnoid and meningioma cells. Localized to the nuclear envelope, Golgi apparatus, secretory vesicles and spherical cytoplasmic structures in arachnoid trabecular cells, and to circular cytoplasmic structures in meningeal macrophages and perivascular microglial cells. In oligodendrocytes, localized to the rough endoplasmic reticulum and nuclear envelope. In retinal pigment epithelial cells, localized to distinct cytoplasmic domains including the perinuclear region. Also secreted

Tissue Location

Abundant in the brain and CNS, where it is

expressed in tissues of the blood-brain barrier and secreted into the cerebro-spinal fluid. Abundantly expressed in the heart. In the male reproductive system, it is expressed in the testis, epididymis and prostate, and is secreted into the seminal fluid. Expressed in the eye and secreted into the aqueous humor. Lower levels detected in various tissue fluids such as serum, normal urine, ascitic fluid and tear fluid. Also found in a number of other organs including ovary, fimbriae of the fallopian tubes, kidney, leukocytes

PTGDS Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)