



Product Data Sheet

□ Cat # RP-783

Recombinant Human Beta-Trace

Size: □ 10 ug

Beta-Trace 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. It has been proposed that the urinary and serum levels may provide a sensitive indicator of renal damage in diabetes mellitus and hypertension. Elevated levels in the coronary circulation may also be associated with angina. Changes in charge and molecular weight microheterogeneity, due to modification of the N-linked oligosaccharides, may be associated with neurodegenerative disease and multiple sclerosis. Detected in meningioma but not in other brain tumors and may be considered a specific cell marker for meningioma.

Synonyms:

Prostaglandin-H₂ D-isomerase, EC 5.3.99.2, Lipocalin-type prostaglandin-D synthase, Glutathione-independent PGD synthetase, Prostaglandin-D₂ synthase, PGD₂ synthase, PGDS₂, PGDS, Beta-trace protein, Cerebrin-28, PTGDS, PDS, BTP, Beta Trace.

Source:

The Human PTGDS His-Tagged Recombinant Protein, produced in *E. coli* (>95%), is 20.3 kDa protein containing 168 amino acid residues of the human BTP and 14 additional amino acid residues - HisTag (underlined).

MRGSHHHHHH GMASAPEAQV SVQPNFQQDK FLGRWFSAAGL ASNSSWLREK KAALSMCKSV VAPATDGGLN
LTSTFLRKNQ CETRTMLLQP AGSLGSYSYR SPHWGSTYSV SVVETDYDQY ALLYSQGSKG PGEDFRMATL YSRTQTPRAE
LKEKFTAFCK AQQFTEDTIV FLPQTDKCMTEQ

Purified protein is supplied liquid in 0.5 mg/ml in 20mM Tris buffer, 20mM NaCl, pH 7.5 9 9 (see lot sp. conc on the vial) or lyophilized in the same buffer. It is recommended to reconstitute the lyophilized Beta-Trace in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Lyophilized PGDS₂ although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PDS should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

This item is for LABORATORY RESEARCH USE ONLY.

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