

Product Information

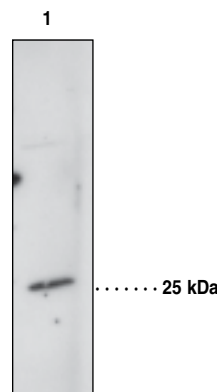


Prostaglandin D Synthase (hematopoietic) Polyclonal Antibody

Item No. 160013 • Lot No. XXXXXX

Synonyms:	H-PGD Synthase, H-PGDS
Contents:	This vial contains (100-500 µg of peptide affinity-purified IgG, <i>lot specific</i>) in 500 µl TBS, pH 7.4, containing 50% glycerol, 0.5 mg/ml BSA, and 0.02% sodium azide.
Host:	Rabbit
Stability:	≥1 year at -20°C
Antigen:	Synthetic peptide from human hematopoietic type PGDS amino acids 30-41 (EDHRIEQADWPE), conjugated to KLH. ¹
Cross Reactivity:	(+) Human, mouse, rat, and baboon PGDS other species not tested. Human E D H R I E Q A D W P E Mouse, rat E D H R I E Q A D W P k Chicken E D H R I E g A D W P k
Application:	This polyclonal antibody can be used for detection of PGDS by western blot at a dilution of <i>lot specific:lot specific (lot specific µg/ml)</i> with any buffer suitable for the experiment. For other applications the working concentration of the antibody must be determined empirically.
Concentration:	Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 µl final working volume for western blotting.

Prostaglandin D synthase (PGDS) catalyzes the isomerization of PGH₂ to produce PGD₂. PGD₂ induces sleep, regulates nociception, inhibits platelet aggregation, and acts as an allergic mediator. Two distinct types of PGDS have been identified, namely the lipocalin type enzyme (β-trace) and the hematopoietic enzyme.²⁻⁴ Lipocalin type PGDS is localized in the central nervous system and male genital organs of various mammals and the human heart. This enzyme has been identified as β-trace, which is a major protein in human cerebrospinal fluid.^{3,5} Hematopoietic PGDS is widely distributed in the peripheral tissues and is localized in the antigen-presenting cells, mast cells, and megakaryocytes.² This enzyme, which requires glutathione for activity, belongs to the sigma-class of glutathione-S-transferases and is approximately 23 kDa in size.¹



Lane 1: Baboon myometrium (50 µg)

References

1. Kanaoka, Y., Fujimori, K., Kikuno, R., *et al.* Structure and chromosomal localization of human and mouse genes for hematopoietic prostaglandin D synthase. *Eur. J. Biochem.* **267**, 3315-3322 (2000).
2. Urade, Y., Watanabe, K., and Hayaishi, O. Prostaglandin D, E, and F synthases. *J. Lipid Mediators Cell Signalling* **12**, 257-273 (1995).
3. Toh, H., Kubodera, H., Nakajima, N., *et al.* Glutathione-independent prostaglandin D synthase as a lead molecule for designing new functional proteins. *Protein Engineering* **9**, 1067-1082 (1996).
4. Kanaoka, Y., Ago, H., Inagaki, E., *et al.* Cloning and crystal structure of hematopoietic prostaglandin D synthase. *Cell* **90**, 1085-1095 (1997).
5. Zahn, M., Mäder, A., Schmidt, B., *et al.* Purification and N-terminal sequence of β-trace, a protein abundant in human cerebrospinal fluid. *Neurosci. Lett.* **154**, 93-95 (1993).

Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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