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Zuschläge

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- Trockeneiszuschlag
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- Expressversand

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PRODUCT INFORMATION

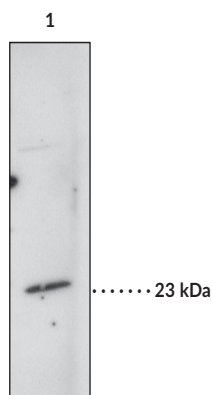


Prostaglandin D Synthase (hematopoietic) Polyclonal Antibody Item No. 160013

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	H-PGD Synthase, H-PGDS
Immunogen:	Synthetic peptide from the N-terminal region of human H-PGDS
Cross Reactivity:	(+) H-PGDS
Species Reactivity:	(+) Human, baboon, mouse, rat; other species not tested
Uniprot No.:	O60760
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Rabbit
Application:	Western blot; the recommended starting dilution 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Baboon myometrium (50 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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PRODUCT INFORMATION



Description

Prostaglandin D synthase (PGDS) is a glutathione-dependent enzyme and member of the sigma class of glutathione-S-transferases (GSTs) that catalyzes the conversion of PGH_2 (Item No. 17020) to PGD_2 (Item No. 12010), an eicosanoid that has numerous biological functions, including vasorelaxation, recruitment of inflammatory cells, and inhibition of platelet aggregation.¹⁻³ There are two types of PGDS: lipocalin PGDS (L-PGDS; Item Nos. 10006788 | 10006787) and hematopoietic PGDS (H-PGDS; Item No. 10006593).³ H-PGDS is found in peripheral tissues and immune cells, including Th2 cells, antigen-presenting cells, mast cells, megakaryocytes, and eosinophils, where it is localized to the cytosol.² H-PGDS activity is increased by a variety of stimuli, including LPS, anti-IgE antibodies, phorbol 12-myristate 13-acetate (TPA; Item No. 10008014), ionomycin (Item No. 10004974), and inflammatory cytokines such as IL-13, IL-3, or IL-4.³ siRNA silencing of *Hpgds* decreases LPS-induced production of PGD_2 in mouse bone marrow-derived macrophages (BMDMs).⁴ Transgenic overexpression of *HPGDS* in mice increases croton oil-induced ear swelling and PGD_2 production, and genome-wide deletion of *Hpgds* exacerbates hypotension and vascular permeability in a mouse model of anaphylaxis.^{5,6} H-PGDS protein levels are increased in the nasal mucosa of patients with allergic rhinitis, and *HPGDS* SNPs have been found in individuals with asthma.^{1,3} Cayman's Prostaglandin D Synthase (hematopoietic-type; mouse) Polyclonal Antibody can be used for Western blot (WB) applications. The antibody recognizes H-PGDS at 23 kDa from human, baboon, mouse, and rat samples.

References

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4. Zhao, G., Yu, R., Deng, J., et al. Pivotal role of reactive oxygen species in differential regulation of lipopolysaccharide-induced prostaglandins production in macrophages. *Mol. Pharmacol.* **83(1)**, 167-178 (2013).
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6. Nakamura, T., Fujiwara, Y., Yamada, R., et al. Mast cell-derived prostaglandin D_2 attenuates anaphylactic reactions in mice. *J. Allergy Clin. Immunol.* **140(2)**, 630-632 (2017).

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