Human Hematopoietic Prostaglandin D Synthase/HPGDS Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6487

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Hematopoietic Prostaglandin D Synthase/HPGDS in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Hematopoietic Prostaglandin D Synthase/HPGDS Pro2-Leu199 Accession # O60760
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

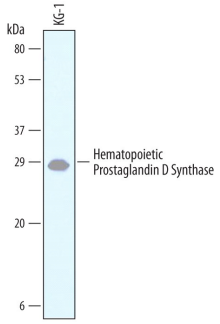
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human Hematopoietic Prostaglandin D Synthase/HPGDS by Western Blot. Western blot shows lysates of KG-1 human acute myelogenous leukemia cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Hematopoietic Prostaglandin D Synthase/HPGDS Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6487) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Hematopoietic Prostaglandin D Synthase/HPGDS at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Prostaglandin D Synthase (PGDS) catalyzes the conversion of prostaglandin (PG) H_2 to PGD_2, which is a major prostanoid produced in a variety of tissues. Two types of PGDS have been isolated; the glutathione-dependent hematopoietic PGDS (HPGDS) and the glutathione-independent lipocalin-type PGDS (1). HPGDS is a cytosolic enzyme that is expressed in mast cells and antigen presenting cells (2, 3). It is the only mammalian member of the class Sigma glutathione S-transferase, showing a broad specificity towards standard transferase substrates (4). The PGD_2 produced by HPGDS is involved in many physiological processes such as maintaining body temperature, promotion of sleep, inhibition of platelet aggregation and bronchoconstriction (5). It also functions in immune response and acts as a mediator in allergy and inflammation (6). HPGDS-specific inhibitors may be therapeutically useful anti-allergic and anti-inflammatory drugs.

References:

1. Urade, Y. and Eguchi, N. (2002) Prostaglandins Other Lipid Mediat. **68**:375.
2. Urade, Y. *et al.* (1990) J. Biol. Chem. **265**:371.
3. Urade, Y. *et al.* (1989) J. Immunol. **143**:2982.
4. Jowsey, I. R. *et al.* (2001) Biochem. J. **359**:507.
5. Kanaoka, Y. and Urade, Y. (2003) Prostaglandins Leukot. Essent. Fatty Acids **69**:163.
6. Oguma, T. *et al.* (2008) Allergol. Int. **57**:307.