



# AVISCERA BIOSCIENCE®

Specialty ELISA Kit Monoclonal Antibody Manufacturer

New Human L-PGDS ELISA 2025 Products

## Lipocalin-type prostaglandin D2 synthase (L-PGDS): A Circulating Biomarker for Cardiovascular Diseases, Metabolism Syndrome.

### L-PGDS and Cardiovascular Diseases:

Lipocalin-type prostaglandin D synthase (L-PGDS) is a protein that may be involved in cardiovascular disease. It may be a predictor of cardiovascular injuries and coronary artery disease.

- **L-PGDS and coronary artery disease**

L-PGDS levels in patients with stable coronary artery disease (CAD) are lower than in controls.

L-PGDS levels are a powerful predictor of coronary severity.

L-PGDS can be secreted from the myocardium into the coronary circulation.

- **L-PGDS and hypertension**

L-PGDS levels in patients with hypertension are higher than in controls.

L-PGDS levels increase as renal function worsens.

L-PGDS metabolism may be related to blood pressure and kidney injuries.

- **L-PGDS and other diseases**

L-PGDS may be involved in other diseases, such as cancers, immune disorders, metabolic disease, neurological/psychiatric disorders, and heart failure.

- L-PGDS may be a therapeutic target for treatment of cardiovascular disease.

- L-PGDS and research

Research is ongoing to identify endogenous ligands of L-PGDS in various body fluids.

Research is ongoing to design inhibitors of L-PGDS.

Research is ongoing to screen for functional abnormalities of L-PGDS gene-manipulated mice.

Sleep regulation: L-PGDS is involved in sleep regulation and may play a role in sleep disorders like obstructive sleep apnea

Inflammation: L-PGDS may contribute to neuroinflammatory diseases

Other functions

L-PGDS is an extracellular carrier of lipophilic substances like bilirubin, biliverdin, and retinoic acid

L-PGDS binds amyloid  $\beta$  peptides, preventing their fibril formation

L-PGDS levels are elevated in patients with hypertension and renal dysfunction

L-PGDS levels are elevated in women who experience preterm birth.

## Lipocalin-type Prostaglandin D Synthase (L-PGDS) Human ELISA Kit

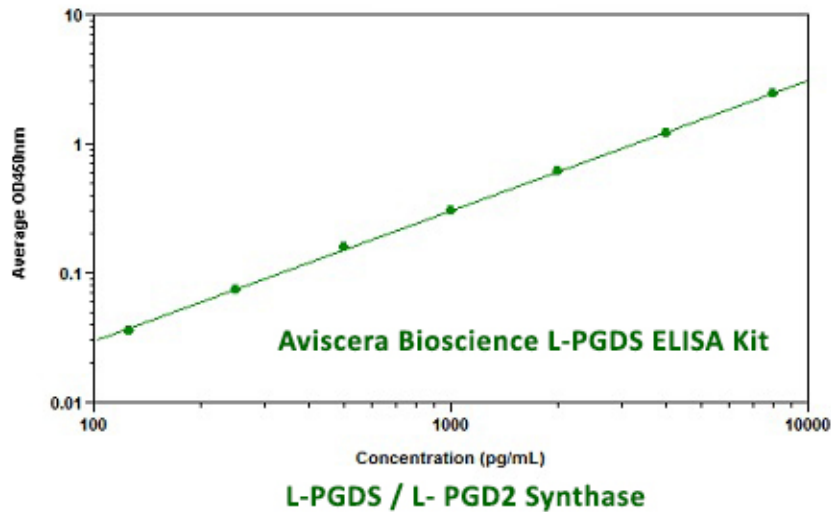
Catalog No.: SK00025-06

Assay Range: 125 ~ 8000 pg/mL

Sensitivity: 30 pg/mL

Calibration: rh L-PGDS (HEK293)

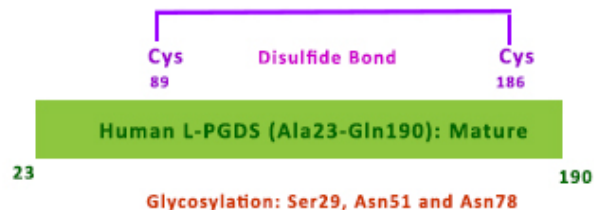
Sample Type: Serum, Plasma, Cell Cultures



### Lipocalin-Type Prostaglandin-D Synthase (L-PGDS) (Human) Prostaglandin D2 Synthase 21kDa (Brain) (Human)

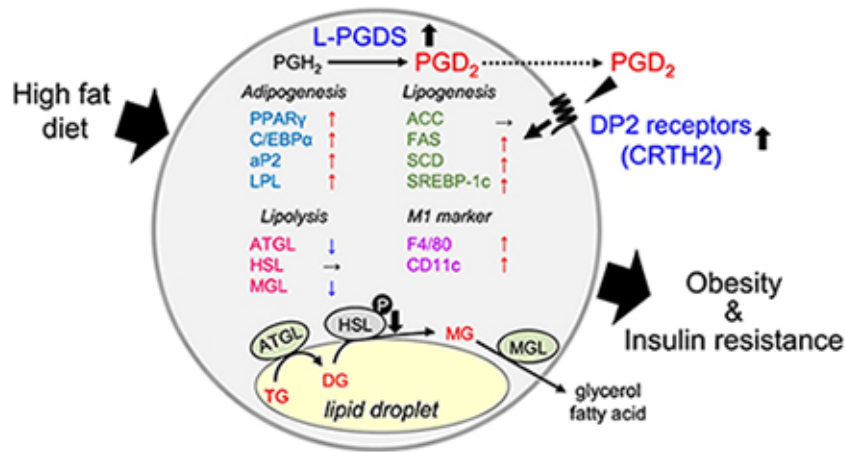
Protein ID: NP\_000945.3 Gene ID: NM\_000954.5

MATHHTLWMG LALLGVLGDL QAAPEAQVSV QPNFQQDKFL  
 GRWFSAGLAS NSSWLREKKA ALSMCKSVVA PATDGGLNLT  
 STFLRKNQCE TRTMLLQPAG SLGSYSYRSP HWGSTYSVSV  
 VETDYDQYAL LYSQGSKPG EDFRMATLYS RTQTPRAELK  
 EKFTAFCKAQ GFTEDTIVFL PQTDKCMTEQ 190



Human L-PGDS ELISA Kit Catalog No.: SK00025-06  
 Manufactured by Aviscera Bioscience. High Sensitivity  
 Antibody Pair and Calibration by the Glycosylated human  
 L-PGDS (23-190) derived from HEK293.  
 Precision L-PGDS Immunoassay Kit for Research Use.

Fujimori, K., Aritake, K., Oishi, Y. et al. L-PGDS-produced PGD2 in premature, but not in mature, adipocytes increases obesity and insulin resistance. *Sci Rep* 2019, 9, 1931: 1-14



**Adipose L-PGDS enhances body weight gain with the elevation of fat mass under HFD conditions.**  
**Summary of activation of obesity by L-PGDS-produced PGD2 through DP2 receptors in adipocytes under HFD conditions.**

L-PGDS may be involved in Obesity and Insulin Resistance

Lipocalin-type prostaglandin D2 synthase (L-PGDS) is a protein that plays a role in metabolism, including glucose transport, fatty liver disease, and insulin resistance. L-PGDS is also involved in the metabolism of arachidonic acid, and is expressed in many tissues, including the brain, heart, liver, and lungs.

Metabolism

Glucose transport

L-PGDS stimulates glucose transport in muscle and adipose tissue, which may contribute to insulin resistance and type 2 diabetes.

Fatty liver disease

L-PGDS plays a role in fatty liver disease, and modulation of L-PGDS signaling may be a therapeutic target for this condition.

Age-related osteoarthritis

L-PGDS deficiency may accelerate the development of age-related osteoarthritis.

Other functions

L-PGDS also plays a role in regulating sleep, pain sensation, and the development of male reproductive organs.

L-PGDS binds to and transports small lipophilic substances, such as steroids, retinoids, and other lipophilic ligands.

L-PGDS binds to fatty acids, various water insoluble drugs, and cannabinoid metabolites.

L-PGDS is involved in the production of PGD<sub>2</sub>, which regulates its physiological function through two receptors named DP1 and DP2.

Product Name	Catalog No.	Size	Price (\$)
Human L-PGDS ELISA Kit (Serum, Plasma)	SK00025-06	96 T	inquire
High Sensitivity Human L-PGDS ELISA Kit (Serum, Plasma)	SK00025-16	96 T	inquire
L-PGDS Ligands Screen ELISA Kit	PL00025-01	4 x 96T	\$2700
Human L-PGDS Protein Pre-coated Microplate	PL00025-01-01	96 T	\$460.00