

Product datasheet

Urinary Prostacyclin ELISA kit ab133032

1 References 1 Image

Overview

Product name Urinary Prostacyclin ELISA kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Low	24	23pg/ml		9.1%
Medium	24	66pg/ml		3.4%
High	24	200pg/ml		2.9%

Inter-assay

Sample	n	Mean	SD	CV%
Low	8	23pg/ml		9.6%
Medium	8	72pg/ml		5.4%
High	8	223pg/ml		3.4%

Sample type Cell culture supernatant, Urine, Tissue Culture Media

Assay type Competitive

Sensitivity 6.58 pg/ml

Range 7.81 pg/ml - 2000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Urine	101.9	% - %
Tissue Culture Media	109.2	% - %

Assay time 3h 0m

Assay duration

Multiple steps standard assay

Species reactivity**Reacts with:** Human**Predicted to work with:** a wide range of other species ▲**Product overview**

Abcam's Human Urinary Prostacyclin *in vitro* competitive ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of Prostacyclin breakdown products in urine. The kit measures the two major breakdown products of Prostacyclin in urine, 6-keto-Prostaglandin F₁ alpha (6k-PGF₁ alpha) and 2,3-dinor-6-keto-Prostaglandin F₁ alpha (2,3d-6k-PGF₁ alpha).

A donkey anti-sheep IgG antibody has been precoated onto 96-well plates. Standards or test samples are added to the wells, along with an alkaline phosphatase (AP) conjugated- Urinary Prostacyclin antigen and a polyclonal sheep antibody specific to Urinary Prostacyclin. After incubation the excess reagents are washed away. pNpp substrate is added and after a short incubation the enzyme reaction is stopped and the yellow color generated is read at 405 nm. The intensity of the yellow coloration is inversely proportional to the amount of Urinary Prostacyclin captured in the plate.

Notes

Prostacyclin (PGI₂) is involved in platelet aggregation, vasoconstriction, and reproductive functions. PGI₂ has a half life of 60 minutes in plasma but only 2 to 3 minutes in buffer. The production of PGI₂ is typically monitored by measurement of 6k-PGF_{1α} and 2,3d-6k-PGF_{1α}. 6-keto-PGF_{1α} is produced by the non-enzymatic hydration of PGI₂, and is further metabolized in urine to the 2,3-dinor derivative. A number of pharmaceuticals alter and/or inhibit the synthesis of PGI₂. Methods to measure PGI₂ in urine typically involve HPLC, gas chromatography/mass spectrometry, or radioimmunoassay and enzyme immunoassay for 6k-PGF_{1α}.

Cross Reactivity

The cross reactivity for a number of related eicosanoid compounds was determined.

Compound	Cross Reactivity
2,3-dinor-6-keto-PGF _{1α}	100%
6-keto-PGF _{1α}	89.14%
PGF _{1α}	13.21%
PGF _{2α}	4.99%
13,14 dihydro-PGF _{1α}	2.55%
15-keto-PGF _{2α}	0.32%
PGE ₁	0.08%
PGD ₂	0.03%

6,15-diketo-13,14 dihydro-PGF _{1α}	0.03%
PGB ₁	0.01%
PGE ₂	0.01%
PGA ₂	0.01%
TXB ₂	0.01%

Platform

Microplate

Properties

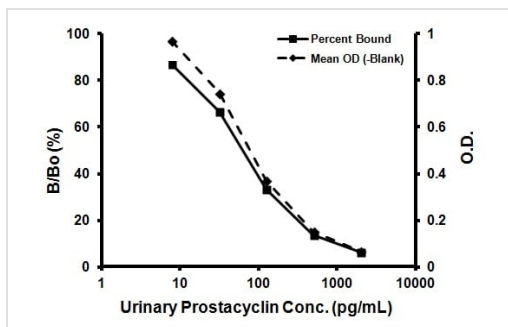
Storage instructions

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 27ml
Assay Buffer	1 x 27ml
Donkey anti-sheep IgG Microplate (12 x 8 wells)	1 unit
Human Urinary Prostacyclin Standard	1 x 500µl
Plate Sealer	1 unit
pNpp Substrate	1 x 20ml
Stop Solution	1 x 5ml
Urinary Prostacyclin Alkaline Phosphatase Conjugate	1 x 5ml
Urinary Prostacyclin Antibody	1 x 5ml

Images

Representative Standard Curve using ab133032



Typical Standard Curve

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