# abcam

#### Product datasheet

## 6-keto-PGF1 alpha ELISA Kit ab133023

1 References 2 Images

Overview

Product name

6-keto-PGF1 alpha ELISA Kit

**Detection method** 

**Precision** 

Colorimetric

| Sample       | n  | Mean      | SD | CV%   |
|--------------|----|-----------|----|-------|
| Low conc.    | 10 | 41pg/ml   |    | 13.1% |
| Medium conc. | 10 | 240pg/ml  |    | 4.8%  |
| High conc.   | 10 | 4886pg/ml |    | 2.9%  |

Inter-assay

Intra-assay

| Sample       | n | Mean      | SD | CV%  |
|--------------|---|-----------|----|------|
| Low conc.    | 8 | 239pg/ml  |    | 7.9% |
| Medium conc. | 8 | 1220pg/ml |    | 5.2% |
| High conc.   | 8 | 4828pg/ml |    | 6%   |

Sample type

Cell culture supernatant, Saliva, Urine, Serum, Plasma, Tissue Culture Media

Assay type

Competitive

Sensitivity

1.4 pg/ml

Range

3.2 pg/ml - 50000 pg/ml

Recovery

Sample specific recovery

| Sample type | Average % | Range |
|-------------|-----------|-------|
| Saliva      | 110.7     | % - % |
| Urine       | 108.7     | % - % |
| Serum       | 108.4     | % - % |

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| Sample type          | Average % | Range |
|----------------------|-----------|-------|
| Tissue Culture Media | 106.7     | % - % |

Assay time

**Assay duration** 

**Species reactivity** 

**Product overview** 

3h 00m

Multiple steps standard assay

Reacts with: Human, a wide range of other species

Abcam's 6-keto-PGF<sub>1</sub> alpha *in vitro* competitive ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of 6-keto-PGF<sub>1</sub> alpha in serum, urine, tissue culture media and other biological fluids.

A donkey anti-sheep lgG antibody has been precoated onto 96-well plates. Standards or test samples are added to the wells, along with an alkaline phosphatase (AP) conjugated-6-keto-PGF $_1$  alpha antigen and a polyclonal sheep antibody specific to 6-keto-PGF $_1$  alpha. After incubation the excess reagents are washed away. pNpp substrate is added. After a short incubation the enzyme reaction is stopped and the yellow color generated by alkaline phosphatase is read at 405 nm. The intensity of the yellow coloration is inversely proportional to the amount of 6-keto-PGF $_{10}$  captured in the plate.

6-keto-PGF $_{1\alpha}$  is a stable hydrolysis product of prostacyclin (PGI $_2$ ). Due to the short half-life of PGI $_2$  in buffer (2-3 minutes) the production of prostacyclin is typically monitored by measurement of the 6-keto-PGF $_{1\alpha}$  metabolite and its derivative in urine, 2,3-dinor-6-keto-PGF $_{1\alpha}$ . PGI $_2$  has autocoid functions that include platelet aggregation, inhibition of vasoconstrictor responses to pressor hormones, platelet anti- and disaggregatory properties, and reproductive functions. The effects are induced by receptor-mediated elevation of cAMP. Prostacyclin has clinical applications in atherosclerosis and protection from myocardial ischemia.

#### **Cross Reactivity**

| Compound                                   | Cross<br>Reactivity |
|--|---------------------|
| 6-keto-PGF <sub>1α</sub>                   | 100%                |
| 2,3-dinor-6-keto-PGF $_{1\alpha}$          | 3.17%               |
| $PGF_{2\alpha}$                            | 1.67%               |
| PGD <sub>2</sub>                           | 0.60%               |
| PGF1α                                      | 0.60%               |
| PGE <sub>1</sub>                           | 0.20%               |
| 6,15-diketo-13,14-dihydro-PGF $_{1\alpha}$ | 0.12%               |
|  |                     |

**Notes** 

| 13,14-dihydro-15-keto-<br>PGF $_{1\alpha}$ | <0.01% |
|--|--------|
| 15-keto-PGF <sub>2α</sub>                  | <0.01% |
| PGA <sub>2</sub>                           | <0.01% |
| PGB <sub>1</sub>                           | <0.01% |
| PGE <sub>2</sub>                           | <0.01% |
| Thromboxane B <sub>2</sub>                 | <0.01% |
| 15-HpETE                                   | <0.01% |
| 2-Arachidonoylglycerol                     | <0.01% |
| Anandamide                                 | <0.01% |

**Platform** 

Microplate

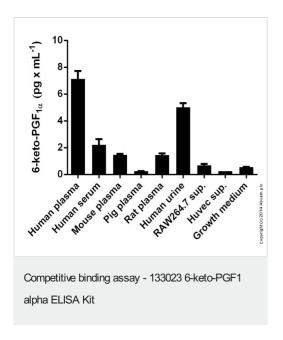
### **Properties**

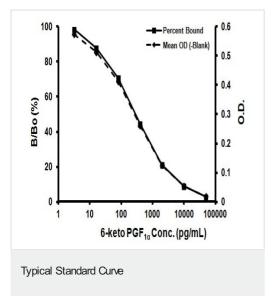
## Storage instructions

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

| Components   | 1 x 96 tests |
|--|--------------|
| 20X Wash Buffer Concentrate                                  | 1 x 27ml     |
| 6-keto-PGF <sub>1</sub> alpha Alkaline Phosphatase Conjugate | 1 x 5ml      |
| 6-keto-PGF <sub>1</sub> alpha EIA Antibody                   | 1 x 5ml      |
| 6-keto-PGF <sub>1</sub> alpha Standard                       | 1 x 500µl    |
| Assay Buffer   | 1 x 27ml     |
| Donkey anti-sheep lgG Microplate (12 x 8 wells)              | 1 unit       |
| Plate Sealer   | 1 unit       |
| pNpp Substrate   | 1 x 20ml     |
| Stop Solution  | 1 x 5ml      |

### Images





Representative Standard Curve using ab133023.

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