

# 8-iso-PGF<sub>2α</sub> ELISA kit

This is a colorimetric competitive immunoassay kit for the quantitative determination of free 8-iso-Prostaglandin F<sub>2α</sub> in biological fluids such as urine and in culture supernatants.

The measurement of F<sub>2</sub>-isoprostanes has emerged as one of the most reliable approaches to assess oxidative stress status *in vivo*, providing an important tool to explore the role of oxidative stress in the pathogenesis of human disease. This is a colorimetric competitive immunoassay kit for the quantitative determination of free 8-iso-Prostaglandin F<sub>2α</sub> in biological fluids such as urine and in culture supernatants. To measure 8-iso-Prostaglandin F<sub>2α</sub> levels in serum, plasma or other tissue samples, use the Direct 8-iso-PGF<sub>2α</sub> EIA Kit.

8-iso-PGF<sub>2α</sub> is produced *in vivo* by both non-cyclooxygenase and cyclooxygenase dependant mechanisms from arachidonic acid. It has been shown to be a potent vasoconstrictor, a potential mediator of hepatorenal syndrome and a mutagen in 3T3 cells and vascular smooth muscle cells. 8-iso-PGF<sub>2α</sub> has been shown to circulate in plasma and is excreted in urine.

Prostaglandin F<sub>2α</sub> (PGF<sub>2α</sub>) is formed in a variety of cells from PGH<sub>2</sub>, which itself is synthesized from arachidonic acid by the enzyme prostaglandin synthetase. PGF<sub>2α</sub> is often viewed as an antagonist to PGE<sub>2</sub> due to their opposing effects on various tissues. PGF<sub>2α</sub> is a potent bronchoconstrictor and has been implicated in asthma attacks. PGF<sub>2α</sub> is also involved in reproductive functions including corpus luteum regulation, uterine contractions, and sperm motility. This has led to its use in terminating pregnancies and inducing labor at term. High levels of PGF<sub>2α</sub> have also been associated with preeclampsia.

Citations: 34

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## Ordering Information

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ADI-901-010

5x96 wells

## Manuals, SDS & CofA

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- Fast - results from up to 36 samples in duplicate in less than 3 hours
- Ready-to-use - liquid color-coded reagents and pre-coated plates reduce errors
- Trusted - published in peer-reviewed journals
- Reliable - reproducible results day-after-day and lot-after-lot
- Save with bulk kit package!

## Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

**Alternative Name** 8-iso-Prostaglandin F2α

**Application** Colorimetric detection, ELISA

**Application Notes** For the quantitative determination of 8-iso-PGF<sub>2α</sub> in culture supernatants, tissue, and urine from any species. Cited sample types include plasma.

**Assay Time** <3 hours

**Compatibility** This product is compatible with the [Absorbance 96 Plate Reader](#).

**Contents** GxR Microtiter plate, Conjugate, Antibody, Assay buffer concentrate, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution

**Sensitivity** 16.3 pg/ml (range 6.1 – 100,000 pg/ml)

**Species Reactivity** Species independent

**Wavelength** 405 nm



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