8-iso-PGF2α ELISA kit

This is a colorimetric competitive immunoassay kit for the quantitative determination of free 8-iso-Prostaglandin $F_{2\alpha}$ in biological fluids such as urine and in culture supernatants.

The measurement of F2-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 $F_{2\alpha}$ in biological fluids such as urine and in culture supernatants. To measure 8-iso-Prostaglandin $F_{2\alpha}$ levels in serum, plasma or other tissue samples, use the Direct 8-iso-$PGF_{2\alpha}$ EIA Kit.

8-iso-$PGF_{2\alpha}$ 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-$PGF_{2\alpha}$ has been shown to circulate in plasma and is excreted in urine.

Prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$) is formed in a variety of cells from PGH_2, which itself is synthesized from arachidonic acid by the enzyme prostaglandin synthetase. $PGF_{2\alpha}$ is often viewed as an antagonist to PGE_2 due to their opposing effects on various tissues. $PGF_{2\alpha}$ is a potent bronchoconstrictor and has been implicated in asthma attacks. $PGF_{2\alpha}$ 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 $PGF_{2\alpha}$ have also been associated with preeclampsia.

Citations: 35 View Online »

Ordering Information

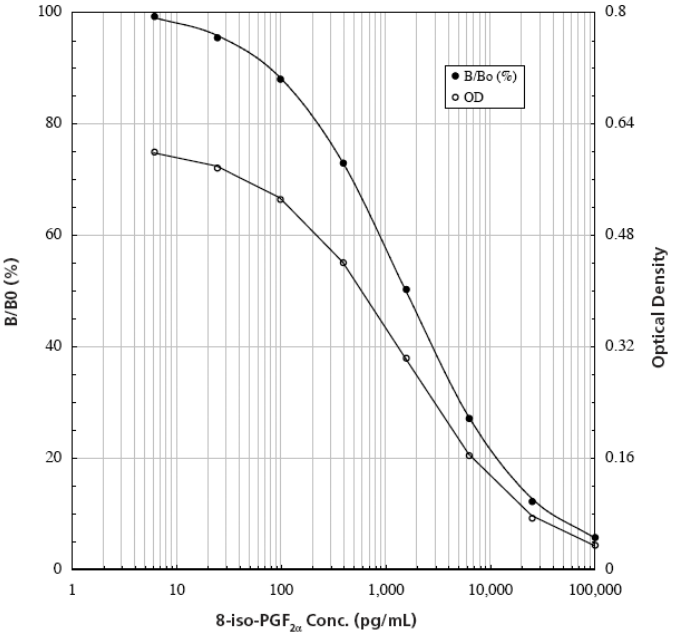
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ADI-900-010	96 wells

Manuals, SDS & CofA

View Online »

- 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


B/Bo (%)
OD
B/B0 (%)
Optical Density
8-iso-PGF2α Conc. (pg/mL)
100
80
60
40
20
0
0.8
0.64
0.48
0.32
0.16
0
1
10
100
1,000
10,000
100,000

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-$PGF_{2\alpha}$ in culture supernatants, tissue, and urine from any species. Cited sample types include plasma.
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	GxR IgG 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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