Direct 8-iso-$PGF_{2\alpha}$ ELISA kit

Highly sensitive ELISA, measuring 8-iso-Prostaglandin $F_{2\alpha}$ in plasma, serum and tissue.

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. The is a colorimetric competitive immunoassay kit for the quantitative determination of 8-iso-Prostaglandin $F_{2\alpha}$ in biological fluids such as plasma, serum and tissue. To measure isoprostane in urine or culture supernatants, use the 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: 34 View Online »

Ordering Information Order Online »

ADI-901-091	5x96 wells

Manuals, SDS & CofA View Online »

- Non-radioactive measurement of isoprostane in serum and plasma
- Flexible options, either overnight or same day results
- High sensitivity, measuring as little as 40 pg/ml
- High throughput format with results for up to 39 samples in duplicate in less than 3 hours
- 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-$PGF_{2\alpha}$ in plasma, serum, and tissue from any species. Cited sample types include cell lysate and urine.
Assay Time	<3 hours or Overnight + 45 min
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	GxR Microtiter plate, Conjugate, Antibody, Sample diluent, Neutralizing reagent, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution
Sensitivity	103.2 pg/mL (<3 hour format), 40.0 pg/mL (overnight) (range 160 – 100,000 pg/mL)
Species Reactivity	Species independent
Technical Info / Product Notes	**Cited samples:** Wildlife Endocrinology: Cited Sample Types
Wavelength	405 nm

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