

Isoprostane Assay Kit

Isoprostane EIA Kit

CATALOG #
AAA71806

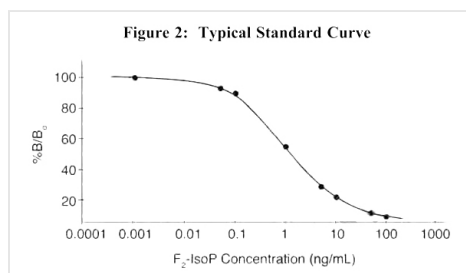
PRODUCT SYNONYMS

Isoprostane; Isoprostane EIA Kit; 15-Isoprostane F2t ELISA Kit; Isoprostane assay kit

PRODUCT SPECIFICATIONS

Assay Type	Competitive
Preparation and Storage	1. Store the components of this kit at the temperatures specified on the labels. 2. Unopened reagents are stable until the indicated kit expiration date. 3. For partial kit storage, all unused components should be stored at 4 degree C, and unused portions of the microplate should be returned to the foil pouch with a desiccant prior to being stored at 4 degree C.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Isoprostane assay kit

Background: Isoprostanes are prostaglandin-like compounds that are produced by free radical mediated peroxidation of lipoproteins. This kit is for the quantification of a representative isoprostane, 15- isoprostane F2t (also known as 8-epi-PGF2alpha, 8-iso-PGF2alpha or 8-isoprostane). Levels of 15-isoprostane F2t (15-IsoP F2t) in biological fluids have been shown to be useful for assessment of oxidant stress in vivo. 15-IsoP F2t has also been shown to be a potent vasoconstrictor in rat kidneys and rabbit lungs, and plays a causative role in atherogenesis. Elevated isoprostane levels are associated with hepatorenal syndrome, rheumatoid arthritis, atherosclerosis, and carcinogenesis. This kit can be used for the quantification of free 15-IsoP F2t in urine, plasma, serum, and tissue samples following Solid Phase Extraction (SPE) of the isoprostane-containing fraction. Instructions are also provided for the quantification of total 15-IsoP F2t following hydrolysis of phospholipids. NOTE: Alternatively, urine samples may be analyzed without SPE using a separate kit, (Catalog #: MBS480410)Urinary Isoprostane ELISA.

Principle of the Assay: This kit is a competitive enzyme-linked immunoassay (ELISA) for determining levels of 15-IsoP F2t in biological samples. Briefly, 15-IsoP F2t in the samples or standards competes with 15-IsoP F2t conjugated to horseradish peroxidase (HRP) for binding to a polyclonal antibody specific for 15- IsoP F2t coated on the microplate. The HRP activity results in color development when the substrate is added, with the intensity of the color proportional to the amount of 15-IsoP F2t bound and inversely proportional to the amount of unconjugated 15-IsoP F2t in the samples or standards.

References

1. Morrow, J., et. al.; (1990) Anal. Biochem. 14:1-10
2. Morrow, J. D., et. al.; (1990) Proc. Natl. Acad. Sci. 87:9383-9387
3. Morrow, et. al.; (1997) Prog. Lipid Res. 36:1-21
4. Morrow, J., et. al.; (1992) Proc. Natl. Acad. Sci. 89:10721-10725
5. Wang, et. al.; (1995) J. Pharm. Exp. Ther. 275:94-100
6. Morrow, J., et. al.; (1999) Anal. Biochem. 269:326-331
7. Roberts II, L. J., Morrow, J. D.; (2000) Free Radical Biol. Med. 28:505-513
8. Morrow, J. D., Roberts II, L. J.; Meth. Enz. 300: 3-12

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/isoprostane/71806>