QuantiChrom™ Iron Assay Kit

Iron level in blood is a reliable diagnostic indicator of various disease states. Increased levels of iron concentration in blood are associated with blood loss, increased destruction of red blood cells (e.g. hemorrhage) or decreased blood cell survival, acute hepatitis, certain sideroachrestic anemias, ingestion of iron-rich diets, defects in iron storage (e.g. pernicious anemia). Decreased levels of blood iron may result from insufficient iron ingestion from diets, chronic blood loss pathologies, or increased demand on iron storage as during normal pregnancy.

Simple, direct and automation-ready procedures for measuring iron concentrations find wide applications in research, drug discovery and environmental monitoring. BioAssay Systems' iron assay kit is designed to measure total iron directly in serum without any pretreatment. The improved method utilizes a chromogen that forms a blue colored complex specifically with Fe^{2+}. Fe^{3+} in the sample is reduced to Fe^{2+}, thus allowing the assay for total iron concentration. The intensity of the color, measured at 590nm, is directly proportional to the iron concentration in the serum. The optimized formulation substantially reduces interference by substances in the raw samples.

APPLICATIONS:

Direct Assays: iron in biological samples (e.g. serum, plasma).
Drug Discovery/Pharmacology: effects of drugs on iron metabolism.
Environment Monitoring: iron in soil extracts, mineralized samples.

KEY FEATURES:

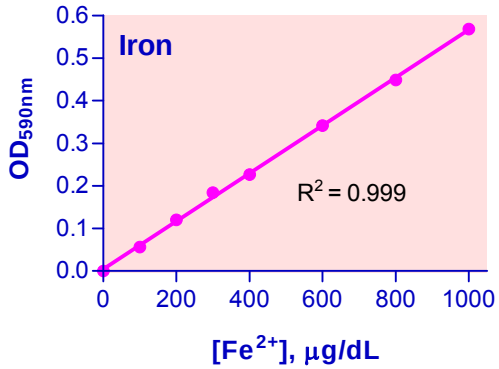
Sensitive and accurate. Linear detection range 27 μg/dL (0.48 μM) to 1,000 μg/dL (18 μM) iron in 96-well plate assay.
Simple and high-throughput. The procedure involves addition of a single working reagent and incubation for 40 min. Can be readily automated as a high-throughput assay in 96-well plates for thousands of samples per day.
Improved reagent stability and versatility. The optimized formulation has greatly enhanced the reagent and signal stability. Assays can be executed in cuvet or 96-well plate.
Low interference in biological samples. No pretreatments are needed. Assays can be directly performed on serum samples.

PRODUCT INFORMATION:

QuantiChrom™ Iron Assay Kit	DIFE-250

Each kit is sufficient for 250 assays in 96-well plate. Kit includes:

- 1 x 50mL Reagent A
- 1 x 4mL Reagent B
- 1 x 4mL Reagent C
- 1 x 1mL 10 mg/dL iron standard



Standard Curve in 96-well plate in assay

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[3]. Hoppe M, Hulthen L, Hallberg L (2003). Serum iron concentration as a tool to measure relative iron absorption from elemental iron powders in man. Scand J Clin Lab Invest. 63(7-8):489-96.