

Copper Assay Kit

Cat. No. Kit-0251 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Copper Assay Kit is a quantitative colorimetric copper determination at 359 nm.
Description	Copper is an essential trace element. Copper-containing enzymes play important roles in iron and catecholamine metabolism, free radical scavenging, and in the synthesis of hemoglobin, elastin and collagen. Copper is mainly present in caeruloplasmin in the liver. Low levels of copper have been associated with mental retardation, depigmentation, anaemia, hypotonia and scorbutic changes in bone. Levels of copper are key diagnostic indicator of diseases such as Wilson's disease, microcytic hypochromic anaemia and bone disease due to reduced collagen synthesis. Simple, direct and automation-ready procedures for measuring copper concentrations find wide applications in research, drug discovery and environmental monitoring. Copper Assay Kit is designed to measure copper with no or minimal sample treatment. The improved method utilizes a chromogen that forms a colored complex specifically with copper ions. The intensity of the color, measured at 359 nm, is directly proportional to copper concentration in the sample. The optimized formulation substantially reduces interference by substances in the raw samples.
Applications	Direct Assays: biological, environmental, food and beverage samples. Drug Discovery/Pharmacology: effects of drugs on Cu metabolism.
Usage	For research use only (RUO)
Storage	Store all reagents at 4°C. Shelf life: 12 months after receipt.

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Kit Components	Reagent A 10 mL Reagent B 1.5 mL Reagent C 40 mL Copper Standard: 1.5 mg/dL Cu ²⁺ 1 Ml
Detection method	Colorimetric
Compatible Sample Types	Biological Sample, Beverage Sample, Environmental Sample, Food Sample
Features & Benefits	Sensitive and accurate. Linear detection range 7 µg/dL (1.0 µM) to 300 µg/dL (47 µM) copper in 96-well plate assay. Simple and high-throughput. The simple procedure 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 reagent and signal stability. Cuvet or 96-well plate assay.

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