

## Zinc Assay Kit

### Product Information

#### Cat.No.

Kit-0850

#### Product Overview

Zinc Assay Kit is a quantitative colorimetric zinc determination at 425 nm.

#### Description

Zinc is an essential trace element and plays many key roles in metabolism. It is required for the activity of more than 300 enzymes, the structure of many proteins, and control of genetic expression. Zinc status affects basic processes of cell division, growth, differentiation, development, performance and aging through its requirement for synthesis and repair of DNA, RNA and protein. The common causes of zinc deficiency are low dietary intakes and low bioavailability. Clinical signs of zinc deficiency include acrodermatitis, low immunity, diarrhea, poor healing, stunting, hypogonadism, fetal growth failure, teratology and abortion. Zinc deficiency has now been recognized to be associated with many diseases such as malabsorption syndrome, chronic liver disease, chronic renal disease, sickle cell disease, diabetes, malignancy, and other chronic illnesses.

#### Applications

Direct Assays: zinc in serum, plasma (no EDTA), urine, saliva etc. Drug Discovery/Pharmacology: effects of drugs on zinc metabolism. Environment: zinc determination in waste water, soil etc.

#### Usage

For research use only (RUO)

#### Storage

Store Zinc standard, Reagents B, Reagent C at -20°C and other components at 4°C. Shelf life: 6 months after receipt.

#### Kit Components

Reagent A 50 mL Reagent B 1 mL Reagent C 1 mL EDTA 1 mL 100 mM Zinc standard 1 mL 50 µM

#### Detection method

 Colorimetric

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## Zinc Assay Kit

### Compatible Sample Types

Plasma (no EDTA), Saliva, Serum, Urine

### Features & Benefits

Sensitive and accurate: Uses 50  $\mu$ L samples. Linear detection range 0.12  $\mu$ M (0.78  $\mu$ g/dL) to 10  $\mu$ M (65  $\mu$ g/dL) zinc in 96-well assay format. Simple and high-throughput: The procedure involves addition of a single working reagent and incubation for 30 min. Can be readily automated as a high-throughput assay for thousands of samples per day. Improved reagent stability and versatility: The optimized formulation has greatly enhanced reagent and signal stability. Cuvette or 96-well plate assay formats possible. Low interference in biological samples. No pretreatments are needed.