

Ceruloplasmin (CP) Assay Kit

Note: Take two or three different samples for prediction before test.

Operation Equipment: Spectrophotometer

Catalog Number: AK0254

Size: 50T/24S

Components:

Solution I: Liquid 15 mL×1. Storage at 4°C .

Solution II : Liquid 10 mL×1. Storage at 4°C .

Solution III: Liquid 20 mL×1. Storage at 4°C, avoid light. (37°C preheat before use.)

Product Description

Ceruloplasmin is copper-containing protein in plasma, which has the function of transporting copper and the activity of oxidase. It is an important antioxidant in extracellular fluid.

Ceruloplasmin catalyzes 3,3',5,5'-tetramethylbenzidine to form blue products with characteristic absorption peaks at 645 nm, and thus the activity of ceruloplasmin can be obtained.

Reagents and Equipment Required but Not Provided.

Spectrophotometer, balance, 1 mL glass cuvette, distilled water.

Procedure and Sample list

1. Preheat the spectrophotometer for more than 30 min, adjust the wavelength to 645 nm, and set zero with distilled water.
2. Operation sheet

	Control Tube (A _C)	Test Tube (A _T)
Sample (mL)	0.1	0.1
Solution I (mL)	0.3	0.3
Solution II (mL)	0.2	
Mix thoroughly, incubate at 37°C for 5 min.		
Solution III (mL)	0.4	0.4
Mix thoroughly, incubate at 37°C for 30 min.		
Solution II (mL)		0.2
Mix thoroughly, place at room temperature for 5 min, and take 200 μL in 1 mL glass cuvette. Measure at 645 nm absorbance value, $\Delta A = A_T - A_C$.		

Calculations

Unit definition: One unit of enzyme activity is defined as each minute per milliliter of sample reacts with the substrate resulting in an increase of absorbance of 0.01 at 37°C in 1 mL reaction system.

$$Cp \text{ activity (U/mL/min)} = \Delta A \times (V_T \div 1) \div 0.01 \div T \div V_S = \Delta A \div 0.03$$

T: Reaction time, 30 min;

Vs: Sample volume, 0.1 mL;

Vr: Total reaction volume, 1 mL;

1: 1 mL Reaction system conditions.

Notes:

Solution II and Solution III have certain toxicity and irritation. Please take protective measures when operating.

Related products:

AK0456/AK0455	Total antioxidant capacity (T-AOC) Assay Kit
AK0454/AK0453	Hydroxyl Radical Scavenging Capacity Assay Kit
AK0452/AK0451	Plant Flavonoids Assay Kit
AK0450/AK0449	Plant Total Phenol (TP) Assay Kit