

Ceruloplasmin Immuno-Turbidimetry

REF.	Pack size
401 01 020	50 tests R1 Buffer Reagent 1 x 20 ml R2 Antiserum 1 x 3 ml

Intended Use

Ceruloplasmin reagent is intended for Quantitative turbidimetric determination of Ceruloplasmin in human serum .

Introduction

Ceruloplasmin (CER) is a glycoprotein which is synthesized mostly in the liver. It is one of the acute phase protein in inflammation and it is the most important carrier of copper (Cu) in plasma. The Ceruloplasmin molecule binds 6-8 Cu atoms. Ceruloplasmin has antioxidative effect. The most important physiological functions of Ceruloplasmin are the regulation of transport, availability, and redox potential of iron (Fe) as a result of its ferroxidase activity; the antioxidative effect of lipids in the cell membrane, due to the prevention of metal ion-catalyzed oxidation; and the transport of copper.

Principle

This Ceruloplasmin test is based upon the Ceruloplasmin antigen-antibody reaction.

Reagents

R1 Buffer Reagent

Phosphate buffered saline(pH 7.43).
Polyethelene glycol (40 g/L).
Sodium azide (0.95 g/L).

R2 Antiserum

Phosphate buffered saline(pH 7.43).
Polyclonal goat anti-human Ceruloplasmin (variable).
Sodium azide (0.95 g/L).

Materials required but not provided with the kit

1-Standard

Ceruloplasmin concentration is stated on the vial label.

2-Controls

Reagent Preparation, Storage and Stability

Ceruloplasmin reagents are stable up to the expiry date labeled on the bottles when stored at 2 - 8°C and contaminations are prevented during their use. Once opened the standard is stable for 6 weeks if stored tightly closed at 2 - 8 °C after use.
For further storage at - 30 °C divide standard into alicots. Stability 3 months. once thawed never freeze again.

Specimen Collection and Preparation

Fresh serum . Stable 2 days at 2 - 8°C or 3 months at -20°C. Samples with presence of fibrin should be centrifuged.
Do not use highly hemolized or lipemic samples. Once opened the standard is stable for 6 weeks if stored tightly closed at 2 - 8 °C after use.

Procedure

Wavelength 340 nm
Temperature 37°C
Cuvette 1cm light path
Zero adjustment distilled water

Bring the reagents at 37°C and pipette:

	Standard	Sample
Reagent (R1)	400 µl	400 µl
Standard	5 µl	-----
Sample	-----	5 µl
Mix, incubate for 2 minutes and record 1st reading (A1).		
Reagent (R2)	60 µl	60 µl

After addition of **R2**, incubate at 37°C and after 5 minutes record 2nd reading (A2)
Adaptation sheets for several automatic analyzers are available upon request.

Calculation

Generate a reference curve by successive 1 : 2 dilutions of Standard in saline (At Least 4 points are recommended). Use Saline as zero point. Determine O absorbance of the sample and each calibrator as following:

O absorbance of sample = (A2 - A1) sample

O absorbance of each Standard = (A2 - A1) for each Standard

Plot the calibration curve and obtain the result.

Expected Values

Normal values are between 22 - 61 mg/dL.
Each laboratory should establish its own reference range.

Sensitivity

When run as recommended, the minimum detection limit of the assay is 4 mg/dL.

Linearity

Up to 100 mg/dL.
specimens showing higher concentration should be diluted 1/5 using physiological saline and repeat the assay.

Interference

Haemoglobin up to 1000 mg/dL.
Bilirubin up to 20 mg/dL.
Triglycerides up to 2500 mg/dL









Waste Disposal

This product is made to be used in professional laboratories. Please consult local regulations for a correct waste disposal.
S56: dispose of this material and its container at hazardous or special waste collection point.
S57: use appropriate container to avoid environmental contamination.
S61: avoid release in environment. refer to special instructions/safety data sheets.

References

Poulik, M. D. and Weiss, M. L., in F. W. Putman, Editor, "The Plasma Proteins, vol. 2 second edition, academic press, New York, pp. 52 - 108.

SYMBOLS IN PRODUCT LABELLING

	For in-vitro diagnostic use
	Batch Code/Lot number
	Catalogue Number
	Consult instructions for use
	Temperature Limitation
	Use by/Expiration Date
	CAUTION. Consult instructions for use
	Manufactured by