
Lab Dept: Chemistry

Test Name: CERULOPLASMIN

General Information

Lab Order Codes: CERP

Synonyms: Copper Oxidase; Ferroxidase; Kayser-Fleischer Ring; Wilson's Disease

CPT Codes: 82390 - Ceruloplasmin

Test Includes: Ceruloplasmin level reported in mg/dL.

Logistics

Test Indications: Investigation of patients with possible Wilson's disease.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: CERS)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, test set up Monday - Saturday

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type: Blood

Container: SST (Marble, gold or red top tube)

Draw Volume: 3 mL (Minimum: 1.5 mL) blood

Processed Volume: 1 mL (Minimum: 0.5 mL) serum

Note: Submission of the minimum volume will not allow for repeat analysis and could result in a QNS (quantity not sufficient) result.

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.

Patient Preparation: Fasting patient (4 hours) is recommended. Non-fasting specimens will be run if submitted.

Sample Rejection: Gross hemolysis; gross lipemia; grossly icteric; mislabeled or unlabeled specimens

Interpretive

Reference Range:

Age:	Males:	Females:
0 – 8 weeks	7.4 – 23.7 mg/dL	7.4 – 23.7 mg/dL
2 – 5 months	13.5 – 32.9 mg/dL	13.5 – 32.9 mg/dL
6 – 11 months	13.7 – 38.9 mg/dL	13.7 – 38.9 mg/dL
12 months – 7 years	21.7 – 43.3 mg/dL	21.7 – 43.3 mg/dL
8 – 13 years	20.5 – 40.2 mg/dL	20.5 – 40.2 mg/dL
14 – 17 years	17.0 – 34.8 mg/dL	20.8 – 43.2 mg/dL
> or = 18 years	19.0 – 31.0 mg/dL	20.0 – 51.0 mg/dL

Critical Values: N/A

Limitations: Ceruloplasmin is a positive acute-phase reactant; therefore levels are elevated in cases of inflammation (as in chronic hepatitis or active infection). Consequently, ceruloplasmin levels are not always extremely low in patients with Wilson’s disease.

Birth control pills and pregnancy increase ceruloplasmin levels.

Methodology: Nephelometric Assay

References: [Mayo Medical Laboratories Web Page](#) September 2017

Updates:

9/23/2008: Reference range changes due to method change from colorimetric to immunoturbidimetric.

11/22/2010: Reference range update due to restandardization of the assay by the kit manufacturer.

1/9/2012: Specimen storage temperature changed from frozen to refrigerated.

8/3/2016: Updated tube type.

9/21/2017: Updated method and reference ranges.