
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: CERE)

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 - 17 years	14.0 - 41.0 mg/dL	14.0 - 41.0 mg/dL
	> or = 18 years	15.0 – 30.0 mg/dL	16.0 - 45.0 mg/dL
<p>Interpretation: Values >14 mg/dL are expected in Wilson's disease. Values vary consistently from patient-to-patient and may be in the normal range in some patients with Wilson's disease (indicating a different primary defect).</p>			

Critical Values:	N/A
Limitations:	<p>Ceruloplasmin levels are affected by infections (ceruloplasmin is a late acute phase reactant) and liver function.</p> <p>Birth control pills and pregnancy increase ceruloplasmin levels.</p> <p>Ceruloplasmin levels are not always low in patients with Wilson's disease.</p>
Methodology:	Immunoturbimetric
References:	Mayo Medical Laboratories Web Page March 2013
Updates:	<p>9/23/2008: Reference range changes due to method change from colorimetric to immunoturbimetric.</p> <p>11/22/2010: Reference range update due to restandardization of the assay by the kit manufacturer.</p> <p>1/9/2012: Specimen storage temperature changed from frozen to refrigerated.</p> <p>8/3/2016: Updated tube type.</p>