
Lab Dept: Chemistry

Test Name: FOLATE, SERUM

General Information

Lab Order Codes: FOLA

Synonyms: Folic Acid; Pteroylglutamic Acid

CPT Codes: 82746 – Folic acid

Test Includes: Folate/Folic Acid reported in mcg/L.

Logistics

Test Indications: Useful for investigation of suspected folate deficiency.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: 9198/FOL)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1-2 days

Special Instructions: This test should not be requested on patients who have recently received methotrexate or other folic acid antagonists.

Specimen

Specimen Type: Blood

Container: Red top tube

Draw Volume: 1.8 mL (Minimum: 1.5 mL) blood

Processed Volume: 0.6 mL (Minimum: 0.5 mL) serum

Collection: Routine venipuncture

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

Patient Preparation: Fasting (8 hours) preferred

Sample Rejection: Specimens other than serum; mislabeled or unlabeled specimens

Interpretive

Reference Range: ≥ 4.0 mcg/L

Critical Values: N/A

Limitations: Patients with combined deficiency of folate and iron may not demonstrate the erythrocyte macrocytosis otherwise typical of folate deficiency anemia. In these patients, however, the red cell distribution width (RDW) will typically be elevated.

A non-fasting specimen results in falsely elevated results.

Patients taking folate may have misleading results.

Folates other than (N)-5-methyltetrahydrofolate and folic acid antagonists (such as methotrexate) may, under some circumstances, be present in serum and will also be measured by this method.

The analytic variability (CV) of both serum and red blood cell folate assays is considerable. Homocysteine and methylmalonic acid levels are alternate assays for folate deficiency.

Some patients who have been exposed to animal antigens, either in the environment or as part of treatment or imaging procedures, may have circulating anti-animal antibodies present. These antibodies may interfere with the assay reagents to produce unreliable results.

Methodology: Competitive Binding Receptor Assay

References: [Mayo Medical Laboratories](#) October 2014

Updates: 7/12/2010: Units update (ug/L to mcg/L) and method update.
5/3/212: Updated reference range, previously listed as ≥ 3.5 mcg/L.