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

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**Interpretive**

**Reference Range:** \( \geq 4.0 \text{ mcg/L} \)

**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 (\( \mu g/L \) to mcg/L) and method update. 5/3/212: Updated reference range, previously listed as \( \geq 3.5 \text{ mcg/L} \).