



Laboratory Service Manual

Lab Dept: Chemistry

Test Name: AFP TUMOR MARKER

General Information

Lab Order Codes: AFPT

Synonyms: Alpha-Fetoprotein (AFP) Tumor Marker, plasma or serum

CPT Codes: 82105 – Alpha-fetoprotein; serum

Test Includes: AFP tumor marker level reported in ng/mL.

Logistics

Test Indications: Useful for the follow-up management of patients undergoing cancer therapy, especially for testicular and ovarian tumors and for hepatocellular carcinoma. Often used in conjunction with human chorionic gonadotropin.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (Test# 8162)

Phone Numbers:

Minneapolis: 612-813-6280

Saint Paul: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, test setup Monday - Saturday

Special Instructions: Amniotic fluid should **not** be sent because this test is only used as a tumor marker. Diagnosis should be confirmed by other tests or procedures. Mayo will not routinely analyze specimens from females of childbearing age unless a suspected tumor diagnosis is specified.

Specimen

Specimen Type: Blood

Container: Red top tube

Draw Volume: 1.8 mL blood



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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 round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range: <6.0 ng/mL

Note: Reference values are for non-pregnant subjects only; pregnancy may cause elevated AFP values. Range for newborns is not available, but concentrations over 100,000 ng/mL have been reported in normal newborns, and the values rapidly decline in the first 6 months of life.

Serum markers are not specific for malignancy and values may vary by method.

Critical Values: N/A

Limitations: This assay is intended only as an adjunct in the diagnosis and monitoring of AFP-producing tumors. The diagnosis should be confirmed by other tests or procedures. AFP is not recommended as a screening procedure for cancer detection in the general population. This test is not intended for the detection of neural tube defects. Higher values are found in newborns and pregnant women. Not useful in patients with pure seminoma or dysgerminoma.

Amniotic fluid should not be sent, because this test is only used as a tumor marker. This test is not the correct AFP test for pregnant patients.

Methodology: Two-site Immunoenzymatic (Sandwich) Assay

References: [Mayo Medical Laboratories Web Page](#) November 2009

Updates: 11/16/2009: Plasma samples no longer accepted at Mayo. Send serum only.
7/8/2010: Specimen storage changed from frozen to refrigerated.