
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 (MML Test: AFP)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, performed Monday through 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: SST (Gold, marble or red)

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

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.

Interpretation:

Alpha-fetoprotein (AFP) levels may be elevated in association with a variety of malignancies or benign diseases.

Failure of the AFP value to return to normal by approximately 1 month after surgery suggests the presence of residual tumor.

Elevation of AFP after remission suggests tumor recurrence; however, tumors originally producing AFP may recur without an increase in AFP.

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.

This test is not intended for detection of neural tube defects. Higher values are found in newborns and pregnant women. Not useful in patients with pure seminoma or dysgerminoma.

Methodology: Two-site Immunoenzymatic (Sandwich) Assay

References:

[Mayo Medical Laboratories Web Page](#) July 2017

Updates:

11/16/2009: Plasma samples no longer accepted at Mayo. Send serum only.

7/8/2010: Specimen storage changed from frozen to refrigerated.

7/11/2017: Updated collection tube information.