
Lab Dept: Chemistry

Test Name: CANCER ANTIGEN 125 (CA 125)

General Information

Lab Order Codes: C125

Synonyms: CA 125; Carbohydrate Antigen 125; Ovarian Cancer-Related Antibodies

CPT Codes: 86304 – CA 125

Test Includes: CA 125 level measured in U/mL.

Logistics

Test Indications: Useful for evaluating patients' response to cancer therapy, especially for ovarian carcinoma. Predicting recurrent ovarian cancer.

Lab Testing Sections: Chemistry – Sendouts

Referred to: Mayo Clinic Laboratories (MML Test: CA25)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1-3 days, test performed Monday - Friday

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type: Blood

Container: SST (Gold, marble or red)

Draw Volume: 3.0 mL (Minimum: 2.25 mL) blood

Processed Volume: 1.0 mL (Minimum: 0.75 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.

Specimen stable refrigerated for 5 days, frozen for 168 days

Patient Preparation: Patient should refrain from taking or being given multivitamins or dietary supplements containing biotin (vitamin B7) that are commonly found in hair, skin and nail supplements and multivitamins.

Sample Rejection: Mislabeled or unlabeled specimens

Interpretive

Reference Range: Females: <46 U/mL
Males: Not applicable

Interpretation: In monitoring studies, elevated levels of cancer antigen 125 (CA 125 above the reference interval after debulking surgery or chemotherapy indicate that residual disease is likely (>95% accuracy). However, normal levels do not rule-out recurrence.

A persistently rising CA 125 value suggests progressive malignant disease and poor therapeutic response.

Physiologic half-life of CA 125 is approximately 5 days.

In patients with advanced disease who have undergone cytoreductive surgery and are on chemotherapy, a prolonged half-life (>20 days) may be associated with a shortened disease-free survival.

Critical Values: N/A

Limitations: Twelve hours before this blood test do not take multivitamins or dietary supplements containing biotin or vitamin B7, which are commonly found in hair, skin, and nail supplements and multivitamins.

Not useful as a screening assay for cancer detection in the normal population.

Results cannot be interpreted as absolute evidence of the presence or absence of disease.

Serum markers are not specific for malignancy and values vary by method. Values obtained with different assay methods cannot be used interchangeably.

Some individuals have antibodies to mouse protein (HAMA) which can cause interference in immunoassays that employ mouse antibodies. In particular, it has been reported that serum samples from patients who have undergone therapeutic or diagnostic procedures that include infusion of mouse monoclonal antibodies may produce erroneous results in such assays. Rerunning the specimen in question after additional blocking

treatment may resolve the issue.

No interference was observed from rheumatoid factors up to a concentration of 1,200 IU/mL.

There is no high-dose hook effect at cancer antigen 125 (CA 125) concentrations of up to 50,000 U/mL

Methodology: Electrochemiluminescent Immunoassay

References: [Mayo Clinic Laboratory](#) December 2024

Updates:
5/11/2010: Volume update.
6/16/2010: Shipping temp changed from frozen to refrigerated. Frozen will still be accepted, refrigerated is preferred.
5/2/2017: Reference range and method update.
12/27/2024: Edited specimen volumes, added specimen stability.