

Ca-125 – [Serum] Analysis

Objective

The objective of this test is to quantitatively measure the serum level of Cancer Antigen 125 (CA-125), a tumor marker primarily used in monitoring ovarian cancer and other malignancies, as well as benign conditions such as endometriosis.

Materials and Methods

Materials:

- Serum sample from patient
- Immunoassay kits (ELISA, chemiluminescence) specific for CA-125
- Microplate reader or automated analyzer
- Standard laboratory equipment (pipettes, centrifuge)

Methods:

1. Sample Collection: Collect venous blood and separate serum via centrifugation.
2. Measurement: Perform CA-125 quantification using immunoassay methods.
3. Calibration: Use calibrators provided in the assay kit for accurate measurement.
4. Interpretation: Compare CA-125 levels to established reference ranges.
5. Quality Control: Include positive and negative controls for assay validation.

Results

- Normal range: < 35 U/mL (may vary by laboratory)
- Elevated CA-125: May indicate ovarian cancer, other malignancies, or benign conditions like endometriosis or inflammation
- Serial measurements are useful for monitoring treatment response and disease recurrence

Conclusion

CA-125 testing is valuable in the diagnosis and management of ovarian cancer and other related conditions. Results should be interpreted alongside imaging studies, clinical findings, and other tumor markers for comprehensive evaluation.