Anti Mullerian Hormone (AMH) – [Serum] Analysis

Objective

The objective of this test is to measure anti-Mullerian hormone (AMH) levels in serum. AMH testing is primarily used to evaluate ovarian reserve, assist in fertility assessment, predict response to ovarian stimulation, and diagnose conditions such as polycystic ovary syndrome (PCOS).

Materials and Methods

Materials:
- Serum sample from patient
- ELISA or chemiluminescent immunoassay kits for AMH
- Microplate reader or automated analyzer
- Standard laboratory equipment (pipettes, centrifuge)

Methods:
1. Sample Collection: Collect venous blood and separate serum by centrifugation.
2. Hormone Measurement: Perform AMH assay using ELISA or chemiluminescent method.
3. Calibration: Utilize kit-provided standards for accurate quantification.
4. Interpretation: Compare AMH levels with age-specific reference ranges; low levels suggest diminished ovarian reserve, while high levels may indicate PCOS.
5. Quality Control: Use internal controls to ensure reliability of results.

Results

- Normal reproductive age range: 1.0–4.0 ng/mL (varies by lab)
- Low AMH: Suggests diminished ovarian reserve or approaching menopause
- High AMH: May indicate polycystic ovary syndrome (PCOS) or granulosa cell tumors

Conclusion

AMH testing is a reliable marker for assessing ovarian reserve and reproductive potential. Results should be correlated with clinical evaluation, ultrasound findings, and other hormonal tests for comprehensive fertility assessment and management.