Creatinine Kinase – [Serum] Analysis

Objective

The objective of this test is to measure serum levels of Creatine Kinase (CK), an enzyme found primarily in muscle tissue. CK levels are useful for diagnosing muscle damage, myocardial infarction, and other muscle-related conditions.

Materials and Methods

Materials:
- Serum sample from patient
- Automated biochemical analyzer or CK assay kits
- Standard laboratory equipment (pipettes, centrifuge)

Methods:
1. Sample Collection: Collect venous blood and separate serum via centrifugation.
2. Measurement: Quantify CK levels using enzymatic or immunoassay methods.
3. Calibration: Use calibrators and controls to ensure assay accuracy.
4. Interpretation: Compare results to reference ranges to assess muscle damage.
5. Quality Control: Include internal controls for reliable results.

Results

- Normal range: 26–192 U/L (may vary by laboratory)
- Elevated CK: Indicates muscle injury, myocardial infarction, or rhabdomyolysis
- Low levels: Generally not clinically significant

Conclusion

Creatinine Kinase testing is valuable in diagnosing and monitoring muscle damage and cardiac events. Results should be correlated with clinical findings and other diagnostic tests.