Insulin Resistance Panel With Score

CPT Code: 83525, 84681
Order Code: 36509
Includes: Insulin, Intact, LC/MS/MS; C-Peptide, LC/MS/MS; Insulin Resistance Score
Alternative Names: IRS, IR Risk Score, CIQ IRS, IRR Score, CardioIQ® IR Score, CIQ Insulin
ABN Requirement: No
Specimen: Serum
Volume: 0.5 mL
Minimum Volume: 0.3 mL
Container: Red Top (no gel barrier) tube (preferred), Gel-barrier tube (SST, Tiger Top)

Collection:

Red Top Serum (preferred sample):

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. Do not shake.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.
5. Aliquot serum into a labeled transport tube and cap tightly.

Gel-barrier/SST Serum:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. Do not shake.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.

Fasting: Overnight fasting is required

Transport: Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions included with the provided shipping box.

Stability:

Ambient (15-25°C): 24 hours
Refrigerated (2-8°C): 7 days
Frozen (-20°C): 28 days

Causes for Rejection: Specimens other than serum; improper labeling; specimen not stored properly; specimen older than stability limits; hemolysis

Methodology: Immunocapture, Liquid Chromatography/Tandem Mass Spectrometry

Turn Around Time: 4 to 6 days

Reference Range: See Laboratory Report

Clinical Significance: The determination of insulin in serum is primarily used for the diagnosis of glycemic disorders in diabetic and pre-diabetic patients in the assessment of insulin resistant syndromes. Insulin is synthesized by the pancreatic beta cell as a precursor, proinsulin. Proinsulin is processed to insulin and C-peptide, a contiguous peptide between the insulin A and B chains, as it passes through the cell. The C-peptide in the proinsulin ensures correct folding and processing of proinsulin as it passes through the cell. Both insulin and C-peptide are released together from the beta cells in response to increased glucose levels. Because of differences in half-life and hepatic clearance, peripheral blood levels of C-peptide and insulin are no longer equimolar but remain highly correlated. A steady-state plasma glucose test in individuals undergoing an insulin suppression test to assess insulin resistance found that the combination of insulin and C-peptide was a better indicator of insulin resistance than either one individually.

Limitations: Insulin analogs lispro and glargine interfere with insulin quantitation, while insulin analogs aspart and degludec do not. The presence of insulin antibodies may alter the test result.

The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.