

TEST CHANGE – METHODOLOGY

Notification Date: 3/17/2025

Effective Date: 3/26/2025

Test Name: Insulin, Serum

Test ID: LAB527

Explanation: On the effective date, Insulin testing will move to new instrumentation. This new methodology allows a wider range of quantification with updated reference intervals to aid in diagnosing insulinoma.

Note: The new methodology is sensitive to biotin interference (≤ 60 ng/mL), and samples should not be taken from patients within 8 hours of high-dose biotin therapy (>5 mg/day).

Current Method – Vanderbilt Hospital Laboratory
Chemiluminescent Immunoassay

New Method – VML at MetroCenter
Electrochemiluminescent Immunoassay

Current Measurement Range
1.6 – 300 μ U/mL

New Measurement Range
1 – 1000 μ U/mL

Current Reference Value
0 – 16 μ U/mL
This test should be ordered to establish the pathogenesis of fasting hypoglycemia. The NACB guidelines suggest that there is no role for routine insulin monitoring in most diabetic patients (Diabetes Care 34:e61-e99, 2011). Patients receiving insulin therapy may develop anti-insulin antibodies which could interfere with the assay. Recombinant insulin and insulin analogs cross-react with this assay to varying degrees.

New Reference Value
3 – 25 μ U/mL
Results may be affected by possible anti-insulin antibodies in patients receiving exogenous insulin. Other assay specific interferences are also possible. Recombinant insulin and insulin analogs cross-react with this assay to varying degrees (PMID: 37598742).

Questions: Please get in touch with Vanderbilt Medical Laboratories Customer Service at 615-875-5227 (5-LABS) or 800-551-5227 or visit our website: [Home | Vanderbilt Medical Laboratories \(vumc.org\)](http://Home | Vanderbilt Medical Laboratories (vumc.org))