MAYO CLINIC LABORATORIES

Test Definition: FINAB

Insulin Autoantibodies (IAA)

Overview

Method Name
Insulin-I125 binding capacity

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen Required
Patient preparation: No radioactive isotopes should be administered 24 hours prior to venipuncture.
Collection Container/Tube:
Preferred: Serum gel
Acceptable: Red top
Submission Container/tube: Plastic vial
Specimen Volume: 0.5 mL
Collection Instructions:
1. Within 24 hours of collection, centrifuge and aliquot 0.5 mL of serum into a plastic vial.
2. Freeze immediately after separation and send frozen.

Specimen Minimum Volume
0.2 mL Note: This volume does not permit repeat analysis.

Reject Due To

Thawing**	Cold Ok; Warm Reject
Radioactive isotopes administered 24 hours prior to venipuncture	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)		

	Refrigerated	72 hours	

Clinical & Interpretive

Clinical Information

Type 1 diabetes, commonly referred to as insulin-dependent diabetes mellitus (IDDM), is caused by pancreatic beta-cell destruction that leads to an absolute insulin deficiency.(1) The clinical onset of diabetes does not occur until 80% to 90% of these cells have been destroyed. Prior to clinical onset, type 1 diabetes is often characterized by circulating autoantibodies against a variety of islet cell antigens, including glutamic acid decarboxylase (GAD), tyrosine phosphatase (IA2), and insulin.(2-5) The autoimmune destruction of the insulin-producing pancreatic beta cells is thought to be the primary cause of type 1 diabetes. The presence of these autoantibodies provides early evidence of autoimmune disease activity, and their measurement can be useful in assisting the physician with the prediction, diagnosis, and management of patients with diabetes. Insulin is the only beta-cell specific autoantigen thus far identified.(4-6) Antibodies to insulin are found predominantly, though not exclusively, in young children developing type 1 diabetes. In insulin-naive (untreated) patients, the prevalence of antibodies to insulin is almost 100% in very young individuals and almost absent in adult onset of type 1 diabetes. Because the risk of diabetes is increased with the presence of each additional autoantibody marker, the positive predictive value of insulin antibody measurement is increased when measured in conjunction with antibodies to GAD and IA2.(2-4)

Reference Values

Negative: <5.0 uU/mL
Positive: > or = 5.0 uU/mL

Clinical Reference

1. Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Diabetes Care. 1997;20(7):1183-1197
2. Bonifacio E, Bingley PJ. Islet autoantibodies and their use in predicting insulin-dependent diabetes. Acta Diabetol. 1997; 34(3):185-193
3. Verge CF, Gianani R, Kawasaki E, et al. Prediction of type I diabetes in first-degree relatives using a combination of insulin, GAD, and ICA512bdc/IA-2 autoantibodies. Diabetes. 1996; 45(7):926-933
4. Bingley PJ, Bonifacio E, Williams AJ, Genovese S, Bottazzo GF, Gale EA. Prediction of IDDM in the general population: Strategies based on combinations of autoantibody markers. Diabetes. 199746(11):1701-1710
5. Grossman AB. Islet-related autoantigens and the pathogenesis of diabetes mellitus. In: Leslie RDG, ed. Molecular Pathogenesis of Diabetes Mellitus. 1997; 22:68-89
6. Greenbaum CJ, Palmer JP, Kuglin B, Kolb H. Insulin autoantibodies measured by radioimmunoassay methodology are more related to insulin-dependent diabetes mellitus than those measured by enzyme-linked immunosorbent assay: Results of the Fourth International Workshop on the Standardization of Insulin Autoantibody Measurement. J Clin Endocrinol Metab. 199274(5):1040-1044

Performance

PDF Report

No

Day(s) Performed
Monday through Sunday

Report Available
9 to 16 days

Performing Laboratory Location
Esoterix Endocrinology

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the Food and Drug Administration.

CPT Code Information
86337

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FINAB	Insulin Antibodies	8072-1

Result ID	Test Result Name	Result LOINC® Value
FINAB	Insulin Antibodies	8072-1