

DATE:	9 June 2025
TO:	All ordering providers
FROM:	Clinical Biochemistry, Alberta Precision Laboratories
RE:	Provincial Changes to Insulin Antibody Testing

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective June 12, 2025, three changes will be made for the Insulin Antibody test (LAB649) performed at the University of Alberta Hospital (UAH) Laboratory:
 - Orders for Insulin Antibody will be cancelled with a comment to guide best test selection.
 - A new test will be built and named “Insulin, Free and Total” (LAB6491).
 - “Insulin, Free and Total” will be temporarily referred out of province.

Background

- The Insulin Antibody test is often misused for type 1 diabetes (T1D) serology and is intended to indirectly detect antibodies against exogenous insulin in diabetic patients.
- Anti-Glutamic Acid Decarboxylase (GAD65) should be used for initial T1D serology due to its high prevalence¹. Insulin autoantibody is not widely available nor recommended for most cases¹.
- The newly built test “Insulin, Free and Total”, previously called Insulin Antibody, more accurately reflects the method used at UAH by differentiating between bound (total) and unbound (free) insulin. This test is intended to determine if insulin antibodies bind to insulin, rendering it metabolically inactive, and potentially altering response to insulin therapy.
- “Insulin, Free and Total” will be temporarily referred out of province due to assay performance issues while a new method is developed at UAH.

How this will impact you

- The cancellation comment appended to the Insulin Antibody report will provide guidance on best test selection.
- After the correct test is ordered, patients will need to return for blood collection.

Action Required

- Order anti-GAD65 (LAB517) as the primary serology for T1D diagnosis.
- Order “Insulin, Free and Total” (LAB6491) to monitor changes in response to insulin treatment due to insulin bound antibodies.
- Refer to the Test Directory for more information.

Questions/Concerns

- Dr. Josh Raizman, Clinical Biochemist, josh.raizman@aplabs.ca, 780-718-2402

Approved by

- Dr. Kareena Schnabl, Clinical Biochemistry Section Chief, North Sector, APL.
- Dr. Michael Mengel, Medical Director, North Sector, APL.

¹American Diabetes Association Professional Practice Committee; 2. *Diagnosis and Classification of Diabetes: Standards of Care in Diabetes—2025. Diabetes Care* 1 January 2025; 48 (Supplement_1): S27–S49.