

DATE:	29 April 2024
TO:	North, Edmonton, and Central Zones (sites that refer testing to Edmonton) All Physicians, Nurses, Healthcare Practitioners, Managers, and Laboratory Staff
FROM:	Clinical Biochemistry, Alberta Precision Labs (APL)
RE:	<i>Anti-Beta-2 Glycoprotein and Anti-Cardiolipin Antibody</i> Test Implementation on Bioplex Instrument

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective April 30, 2024, serum *Anti-Beta-2 Glycoprotein* and *Anti-Cardiolipin Antibody* testing will be implemented on the Bioplex instrument at the University of Alberta Hospital (UAH) to align with the Calgary laboratory.

Background

- Bioplex implementation is part of large-scale provincial standardization.
- These tests are useful for evaluating patients suspected of having systemic lupus erythematosus (SLE) and/or antiphospholipid syndrome (APS).

How this will impact you

- *Anti-Cardiolipin Antibody* testing at UAH will transition from the ELISA method to a multiplex immunoassay (Bioplex) method.
- Refer to Table 1 in the Appendix for reference interval, unit, and new reporting comment changes.
- The expected result turnaround time is 1 to 3 days.
- Patients having serial monitoring (initial and repeat tests) at the time of transition may need a new baseline for comparison.
- To avoid duplicate orders, the individual antiphospholipid antibody test codes are no longer available for physicians to order. For special circumstances (discrepant results), the lab can place the order.

Action Required

- Continue using the *Antiphospholipid Syndrome Investigation* panel test code Lab478 or the APS Investigation requisition for community practitioners. Send the patient to a collection site capable of performing this collection. (Table 2). These sites are also listed in the [Alberta Precision Laboratories | Lab Services \(albertahealthservices.ca\)](https://www.albertahealthservices.ca) test directory.
- For STAT testing and special circumstances, contact the Clinical Biochemist on call.

Questions/Concerns

- Dr. Kareena Schnabl, Clinical Biochemist, UAH Special Chemistry Laboratory:780 407-3186;
Kareena.schnabl@aplabs.ca

Approved by

- Dr. Michael Mengel, Medical Director, North Sector, APL
- Dr. Artur Szkotak, Hematopathology Section Chief, North Sector, APL



Appendix

Table 1A Bioplex Reference Intervals and Units

Test	Current RI	Current Units	New RI	New Units
Anti-Cardiolipin Antibody IgG	Negative <15 Indeterminate 15-20 Low Medium Positive 21–80 High Positive >80	GPL units	Negative <20 Low Positive 20 - 40 Moderate Positive 40 - 80 High Positive >80	GPL - U/mL
Anti-Beta-2 Glycoprotein IgG	Negative <20 Low Positive 20 - 40 Moderate Positive 40 - 80 High Positive >80	GPL - U/mL	No change	No change

Table 1B Bioplex Provincially Standardized Reporting Comments

Test	Reporting Comments
Anti-Cardiolipin Antibody IgG and Anti-Beta-2 Glycoprotein IgG	Negative – Fulfills the 99 th percentile cutoff as described by the 2006 Sydney criteria. J. Thromb. Haemost. 2006; 4:295-306. Positive results (≥ 20 GPL-U/mL) are defined as $>99^{\text{th}}$ percentile cutoff and are associated with Anti-Phospholipid Syndrome when measured on two or more occasions at least 12 weeks, but not more than 5 years apart, as defined by the 2006 Sydney criteria (J. Thromb. Haemost. 2006; 4:295-306)

Table 2 List of Antiphospholipid Syndrome Investigation Patient Service Centre Collection Sites

Edmonton Zone

- Heritage PSC
- Northgate PSC
- Leduc PSC
- Meadowlark PSC
- Tawa PSC
- Windermere PSC

North and Central Zones

- Camrose PSC
- Fort McMurray Franklin PSC
- Grande Prairie PSC
- Lloydminster PSC
- Red Deer Downtown PSC
- Red Deer Bower Plaza PSC

Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.