

<b>DATE:</b>	5 February 2024
<b>TO:</b>	North, Edmonton, and Central Zones (sites that refer testing to Edmonton): All Physicians, Nurses, and Managers
<b>FROM:</b>	Clinical Biochemistry, Alberta Precision Labs (APL)
<b>RE:</b>	<b>Implementation of the <i>Anti-Double Stranded DNA</i> Test on the Bioplex Instrument</b>

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### Key Message

- Effective February 5, 2024, serum *Anti-Double Stranded DNA (Anti-dsDNA)* testing at the University of Alberta Hospital, Special Chemistry laboratory in Edmonton, will transition from the Luminex analyzer to the Bioplex analyzer to align with the Calgary Immunochemistry laboratory.

### Background

- On December 11, 2023, Alberta Precision Laboratories began Bioplex implementation as part of a large-scale provincial project to standardize chemistry instrumentation. This initiative will reduce the variation of autoantibody immunoassays in Alberta.
- Double stranded DNA antibodies help confirm the diagnosis of Systemic Lupus Erythematosus (SLE) in patients with clinical features. Following levels of anti-dsDNA antibody in SLE patients may be of use in monitoring disease activity.

### How this will impact you

- Anti-dsDNA* runs together with the *Extractable Nuclear Antigen Antibodies* (ENA) test, but the result will chart under *Anti-Double Stranded DNA* test rather than within the ENA test panel.
- Anti-dsDNA* units will change from mean fluorescence units (MFU) to kIU/L.
- The new lower limit for the *Anti-dsDNA* test is <1 and the new upper limit is >30,000.
- Refer to the Appendix for new reference intervals (RIs).
- Known patients monitored overtime will require re-baselining due to differences in *Anti-dsDNA* results and reference intervals between Luminex and Bioplex *Anti-dsDNA* methods.

### Action Required

- For initial lupus investigations, order “*Extractable Nuclear Antigen Antibodies*” LAB 4622. To monitor known lupus patients, order “*Anti-Double Stranded DNA*” LAB 648.
- Be aware of changes to *Anti-dsDNA* assay and lab reporting. Refer to [APL Anti-dsDNA test directory](#)
- Patients having serial monitoring at the time of transition may need a new baseline for comparison.
- For urgent requests, contact the on-call clinical biochemist.

### Questions/Concerns

- Dr. Kareena Schnabl, Clinical Biochemist: 780 407-3186; [kareena.schnabl@albertaprecisionlabs.ca](mailto:kareena.schnabl@albertaprecisionlabs.ca)

### Approved by

- Dr. Michael Mengel, Medical Director, North Sector, APL
- Dr. Allison Venner, Associate Section Chief, Clinical Biochemistry, APL
- Dr. Paul Klonowski, Associate Medical Director, South Sector, APL



## Appendix

### Bioplex Reference Intervals

Luminex RIs	Bioplex RIs	Comment
<120 MFU	≤4 kIU/L	Negative
120-230 MFU	5-9 kIU/L	Indeterminant. Lab will reflex to Crithidia dsDNA antibody if needed.
>230 MFU	≥10 kIU/L	Positive

*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.*