

NEW TEST  TEST CHANGE

NOTIFICATION DATE: 08/22/2024

EFFECTIVE DATE: 09/10/2024

## Thyroid Peroxidase Antibodies (TPO)

Effective 9/10/2024, Northwell Health Laboratories will transition to a new assay methodology for the measurement of thyroid peroxidase autoantibodies (anti-TPO). The current chemiluminescence immunoassay (Siemens IMMULITE 2000 Anti-TPO Ab) will be replaced with an electrochemiluminescence immunoassay (Roche ELECSYS Anti-TPO).

Thyroid peroxidase is a crucial enzyme in the biosynthesis of thyroid hormones and is a fundamental component of normal thyroid function. The presence of autoantibodies directed against thyroid peroxidase (anti-TPO) is often indicative of autoimmune thyroid diseases. Specifically, anti-TPO autoantibodies are elevated in >90% of Hashimoto's disease (autoimmune thyroiditis) patients and 50-80% of Graves' disease patients.

An in-house method comparison study conducted at Northwell Health Laboratories demonstrated acceptable qualitative clinical concordance between the two assays. ***However, direct comparison of quantitative result values between the two assays is not feasible due to variability in immunoassay design and antibody epitope recognition.*** Please be aware of this change in methodology when reviewing patient histories and previous anti-TPO results, particularly for patients undergoing serial monitoring. Adjustments in clinical interpretation is necessary, as highlighted in the table below.

| Test Requirement        | New   | Previous  |
|-------------------------|---|---|
| Methodology             | Electrochemiluminescence Immunoassay                              | Chemiluminescence immunoassay                       |
| Assay Manufacturer      | Roche Diagnostics   | Siemens Healthineers                                |
| Reference Interval      | $\leq 34$ IU/mL: <b>Negative</b><br>$> 34$ IU/mL: <b>Positive</b> | $\leq 35$ IU/mL: Negative<br>$> 35$ IU/mL: Positive |
| Specimen Collection     | 1 mL Serum (0.5 mL minimum)                                       | 1 mL Serum (0.5 mL minimum)                         |
| Computer Interface Code | <b>PDM #5915422</b>   | <b>PDM #5915422</b>                                 |
| Test Order              | <b>TPO</b>  | <b>TPO</b>  |

If you have any questions, please contact Client Services at (800) 472-5757.

