Thyroglobulin Panel with HAMA Treatment

Clinical Use
- Screen patients with thyroid carcinoma for metastases or recurrence

Reference Range

<table>
<thead>
<tr>
<th>Thyroglobulin</th>
<th>ng/mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>2.0-35.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thyroglobulin Antibody</th>
<th>IU/mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults and children</td>
<td>&lt;20*</td>
</tr>
</tbody>
</table>

*Higher levels can interfere with thyroglobulin quantification.

Interpretive Information
- Graves disease
- Multinodular goiter
- Papillary and follicular thyroid carcinomas
- Thyroiditis
- TSH-dependent hyperthyroidism
- Thyroidectomy
- Thyroid aplasia
- Thyroglobulin synthetic defect
- Exogenous thyroid hormone use

Clinical Background
Heterophilic antibodies, defined as antibodies against animal immunoglobulins, can be a source of interference in many immunoassays. The most frequently characterized interference comes from endogenous human anti-mouse antibodies (HAMA), which can react with the mouse monoclonal antibodies utilized in the assay. HAMA presence in the patient sample can lead to over- or underestimation of thyroglobulin. In this test, HAMA is removed by precipitation prior to thyroglobulin or thyroglobulin antibody determination.

Method
- HAMA precipitation

Thyroglobulin
- Immunochemiluminometric assay (ICMA)
- Analytical sensitivity: 0.2 ng/mL
- Analytical specificity: underestimation caused by thyroglobulin autoantibodies

Thyroglobulin Antibody
- Immunochemiluminometric assay (ICMA)
- Analytical sensitivity: 20 IU/mL

Specimen Requirements
2 mL room temperature serum
1.5 mL minimum
No additive red top preferred
SST red top acceptable