Clinical Use
- Evaluate discordant serum T4 levels

Reference Range
Negative

Interpretive Information
- Autoimmune thyroid disease
- Other autoimmune disease

Clinical Background
Patients with autoimmune thyroid diseases, including autoimmune (Hashimoto) thyroiditis and Graves disease, may rarely develop antibodies to T4 (thyroxine) and/or T3 (triiodothyronine). T4 antibodies interfere with T4 assay measurement by competing with the anti-T4 immunoglobulins used in the T4 assay. When a patient has a serum T4 concentration that is discordant with other test results, eg, elevated serum T4 in the absence of thyroxine binding globulin (TBG) excess and presence of a detectable serum TSH concentration, then it may be appropriate to determine if anti-T4 antibodies are present.

Method
- Radiobinding assay (RBA)

Specimen Requirements
1 mL refrigerated serum
0.1 mL minimum
No additive red top preferred
SST red top acceptable