

Notification Date: February 25, 2025 Effective Date: March 27, 2025

Thyroglobulin Mass Spectrometry, Serum

Test ID: TGMS

Explanation: On the effective date the reference range will be updated as indicated below. Turn around times have also been updated to meet the following published information.

Current Report Available	New Report Available
3 to 6 days	3 to 10 days

Current Reference Value

Healthy individuals with intact, functioning thyroid: < or =33 ng/mL

The reference ranges listed below, however, are for thyroid cancer follow up of athyrotic patients and apply to unstimulated and stimulated thyroglobulin (Tg) measurements. Ranges are based on best practice guidelines and the literature, which includes Mayo Clinic studies, and represent clinical decision levels.

Decision levels for thyroid cancer patients, who are not completely athyrotic (ie, patient has some remnant normal thyroid tissue), have not been established, but are likely to be somewhat higher: remnant normal thyroid tissue contributes to serum Tg concentrations 0.2-1.0 ng/mL per gram of remnant tissue, depending on the thyroid-stimulating hormone (TSH) level.

Tg <0.2 ng/mL: Tg levels must be interpreted in the context of TSH levels, serial Tg measurements, and radioiodine ablation status. Undetectable Tg levels in athyrotic individuals on suppression therapy indicate a minimal risk (<1%-2%) of clinically detectable recurrent papillary/follicular thyroid cancer.

Tg > or =0.2 ng/mL to 2.0 ng/mL: Tg levels must be interpreted in the context of TSH levels, serial Tg measurements, and radioiodine ablation status. Tg levels of 0.2-2.0 ng/mL in athyrotic individuals on suppressive therapy indicate a low risk of

New Reference Value

Healthy individuals with intact, functioning thyroid: < or =33 ng/mL

clinically detectable recurrent papillary/follicular thyroid cancer. Tg 2.1 ng/mL to 9.9 ng/mL: Tg levels must be interpreted in the context of TSH levels, serial Tg measurements and radioiodine ablation status. Tg levels of 2.1-9.9 ng/mL in athyrotic individuals on suppression therapy indicate an increased risk of clinically detectable recurrent papillary/follicular thyroid cancer. Tg > or =10 ng/mL: Tg levels must be interpreted in the context of TSH levels, serial Tg measurements and radioiodine ablation status. To levels of 10 ng/mL or above in athyrotic individuals on suppressive therapy indicate a significant (>25%) risk of clinically detectable recurrent papillary/follicular thyroid cancer.

Questions

Contact Joshua Yang, Laboratory Resource Coordinator at 800-533-1710.