TG
Native Human Thyroglobulin/TG

Catalog No.	CRT144A	**Quantity:**	20 µg
	CRT144B		100 µg
	CRT144C		1.0 mg

Alternate Names: Thyroglobulin, TGN, AITD3, TG.

Description: Thyroglobulin (TG) represents one of the main autoantigenic targets in autoimmune thyroid disease of humans. TG is a large globular dimeric glycoprotein with a total molecular weight of 660 kDa, which occupies a key precursor role in the biosynthesis of the thyroid hormones. Approximately 75% of the total protein content of the thyroid follicle consists of TG. The thyroid gland uses the Thyroglobulin in order to produce the thyroid hormones thyroxine (T4) and triiodothyronine (T3). Thyroglobulin is produced by the thyroid epithelial cells (thyrocytes) which form spherical follicles. Thyroglobulin is subsequently secreted and stored in the follicular lumen.
Patients with Hashimoto's thyroiditis or Graves' disease, frequently develop antibodies against Thyroglobulin. Tg-specific antibodies help in the diagnosis of the above diseases, however they also may be present in apparently healthy euthyroid individuals. Blood Thyroglobulin levels can be used as a tumor marker for certain kinds of thyroid cancer, and the may also be elevated in cases of Graves' disease.

Gene ID: 7038

Protein Accession No: P01266

Source: Native, Isolated from human thyroid glands.

Molecular Mass: 662 kDa (331 kDa per subunit)

Formulation: Human Thyroglobulin is supplied at a concentration of 0.82 mg/ml in 16 mM HEPES buffer pH-7.6 + 240 mM sodium chloride and 20% glycerol

Purity: Greater than 95% as determined by SDS-PAGE.

Immunological Functions:
1. Binds to IgG-type human auto-antibodies.
2. Auto-antibodies to thyroglobulin recognize conformation-dependent epitopes.
3. Standard ELISA test (checker-board analysis of positive/negative sera panels, including 1st international reference serum NIBSC 65/93).

Coating Concentration: 0.7-1 µg/ml (depending on the type of ELISA plate and coating buffer).
Suitable for biotinylation and iodination.

Storage & Stability: Store at 4°C if entire vial will be used within 2-4 weeks.
Store, frozen at -20°Cfor longer periods of time.
Avoid multiple freeze-thaw cycles.

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